

UTAH DIVISION OF OIL, GAS AND MINING

REMARKS: WELL LOG ☒ ELECTRIC LOGS ☒ WATER SANDS ☐ LOCATION ☐ SUB. REPORT/ABD. ☐* operator name change 10-82
K. Stat-In 2-28-84 # 900314

OWW chg of opn off 3-1-90 - Consulted to

DATE FILED 7-23-80

LAND: FEE & PATENTED

STATE LEASE NO.

PUBLIC LEASE NO.

U-16766

INDIAN

DRILLING APPROVED 7-29-80 OWW

SPUDED IN: 1-19-81

COMPLETED: 4-24-81 POW PUT TO PRODUCING:

INITIAL PRODUCTION: 78 BOPD, 28 MCF, 94 BWPD

GRAVITY A.P.I.

GOR:

PRODUCING ZONES: 5438-5446

TOTAL DEPTH: 5673

WELL ELEVATION: 4495

DATE ABANDONED:

FIELD: TURNER BLUFF

UNIT:

COUNTY: SAN JUAN

WELL NO. FEDERAL 23-32

API NO: 43-037-30575

LOCATION 1950' FT. FROM (N) (S) LINE.

1970'

FT. FROM (E) (W) LINE.

SW NE 1/4-1/4 SEC. 23

Hay Hot Oil, Inc.

TWP.

RGE.

SEC.

OPERATOR

TWP.

RGE.

SEC.

OPERATOR

40S

22E

23

PEM Petroleum
LADD PETROLEUM CORP.

Cutler	3250
Organ Rock	3434
Cedar Mesa	3810
Honaker Trail	4249
Upper Inlay	5316
Lower Inlay	5437
Granodiorite	5498
Desert Creek	5646



POWERS ELEVATION

OIL WELL ELEVATIONS AND LOCATIONS
CHERRY CREEK PLAZA, SUITE 1201
600 SOUTH CHERRY STREET
DENVER, COLORADO 80222
PHONE NO. 303/321-2217

July 22, 1980

Division of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, Utah 84116

RE: Filing Application for Permit to Drill
Ladd Petroleum Corporation
Ladd Federal #23-32
SW NE Sec. 23 T40S R22E
1950' FNL & 1970' FEL
San Juan County, Utah

RECEIVED
JUL 25 1980

DIVISION OF
OIL, GAS & MINING

Gentlemen:

Enclosed are three copies each of the Federal A.P.D. Form 9-331C, Ten-Point Compliance Program, Blowout Preventer Diagram, and the location and elevation plat for the above-captioned well location.

Please return the approved copies to:

Dave Dillon
Ladd Petroleum Corporation
518 17th Street
Suite 830
Denver, Colorado 80202

Very truly yours,

POWERS ELEVATION

Connie L. Frailey

Connie L. Frailey
Manager, Environmental Services

CLF/cd
Enclosures

cc: Dave Dillon

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒GAS
WELL ☐OTHER ☐SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Ladd Petroleum Corporation

Dane Dillon

3. ADDRESS OF OPERATOR

518 17th St., Suite 830, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

1950' FNL & 1970' FEL (SW NE)

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

11.8 miles West of Montezuma Creek, Utah

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

1950'

16. NO. OF ACRES IN LEASE

480

17. NO. OF ACRES ASSIGNED
TO THIS WELL

80

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

6100'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

4495' GR

22. APPROX. DATE WORK WILL START*

Aug. 15, 1980

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8-5/8" New	24# K-55 ST&C	1800'	Class "B" plus 1/4#/sack flocele
7-7/8"	5 1/2" New	14 & 15.5# K-55 ST&C	6100'	200 sacks 50-50 poz mix

1. Drill 12 1/4" hole and set 8-5/8" surface casing to 1800' with good returns.
2. Log B.O.P. checks in daily drill reports and drill 7-7/8" hole to 6100'.
3. Run tests if warranted and run 5 1/2" casing if productive.
4. Run logs, as needed, and perforate and stimulate as needed.

EXHIBITS ATTACHED:

- "A" Location and Elevation Plat
- "B" The Ten-Point Compliance Program
- "C" The Blowout Preventer Diagram
- "D" The Multi-Point Requirements for A.P.D.
- "E" Access Road Map to Location
- "F" Radius Map of Field
- "G" Drill Pad Layout, Production Facilities & Cut-Fill Cross-Section
- "H" Drill Rig Layout
- "K" Acidizing Equipment Layout

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Dane K. Dillon

TITLE

Drilling Engineer

DATE

6-2-80

(This space for Federal or State office use)

PERMIT NO.

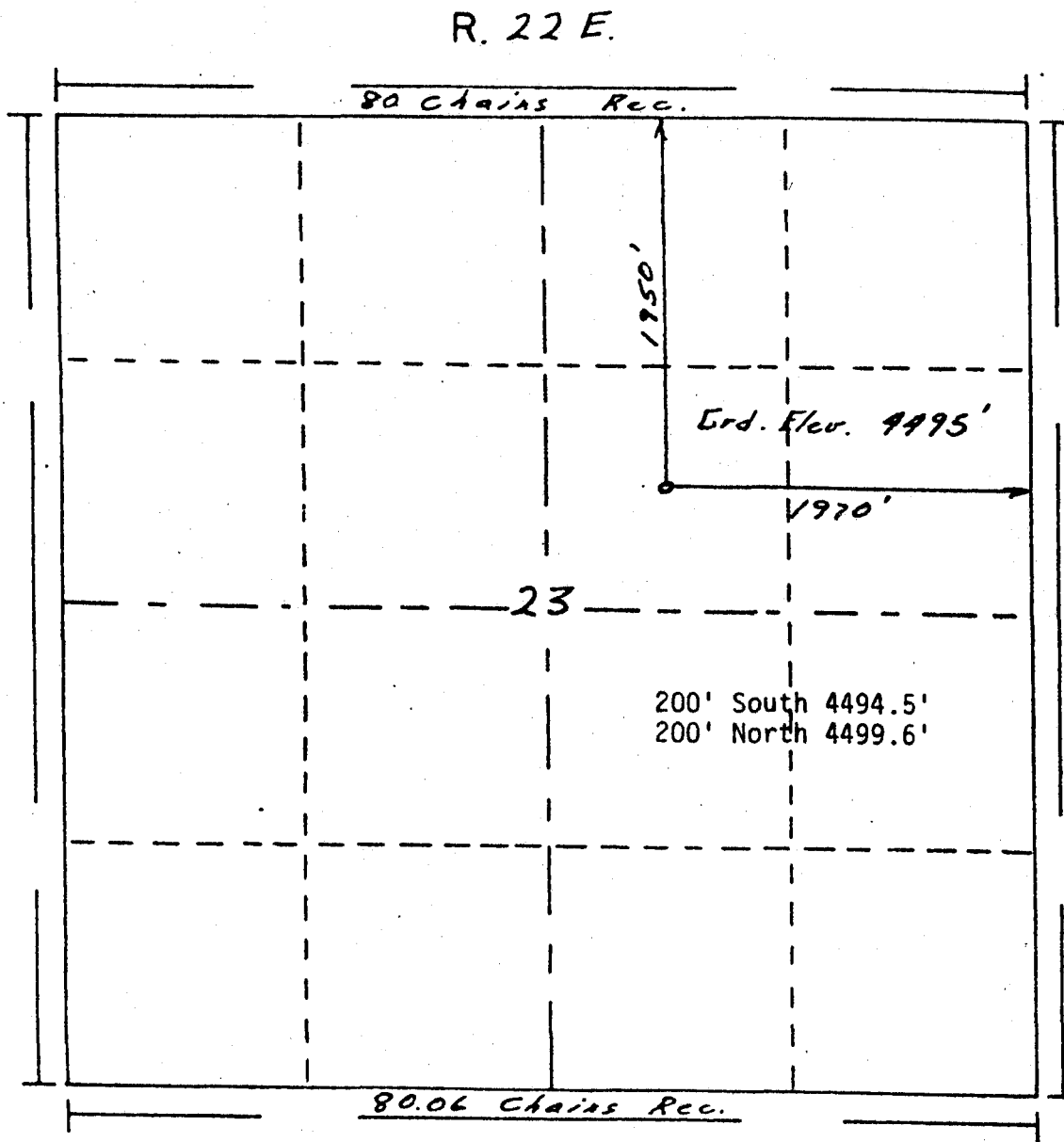
APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:



T. 40 S.

Scale... 1" = 1000'

Powers Elevation of Denver, Colorado
has in accordance with a request from Dave Dillion
for Ladd Petroleum Corp.
determined the location of #23-32 Ladd Federal
to be 1950' ENL & 1970' FEL Section 23 Township 40 South
Range 22 East Salt Lake Meridian
San Juan County, Utah

I hereby certify that this plot is an
accurate representation of a correct
survey showing the location of
#23-32 Ladd Federal

Date: 27 June '80

Licensed Land Surveyor No. 2711
State of Utah

EXHIBIT "B"
TEN-POINT COMPLIANCE PROGRAM
OF NTL-6 APPROVAL OF OPERATIONS

Attached to Form 9-331C
 Ladd Petroleum Corp.
 Ladd Federal #23-32
 SW NE Sec. 23 T40S R22E
 1950' FNL & 1970' FEL
 San Juan County, Utah

1. The Geologic Surface Formation

The surface formation is the Jurassic Morrison.

2. Estimated Tops of Important Geologic Markers

Chinle	1763'
Moenkopi	2583'
Lower Ismay	5835'
Desert Creek	5922'
Total Depth	6100'

3. Estimated Depths of Anticipated Water, Oil, Gas or Minerals

Lower Ismay	5835'	Oil
Desert Creek	5922'	Oil

Water is anticipated in the Navajo and Wingate formations.

4. The Proposed Casing Program

<u>HOLE SIZE</u>	<u>INTERVAL</u>	<u>SECTION LENGTH</u>	<u>SIZE (OD)</u>	<u>WEIGHT, GRADE & JOINT</u>	<u>NEW OR USED</u>
12 $\frac{1}{4}$ "	0 - 1800'	1800'	8-5/8"	24# K-55 ST&C	New
7-7/8"	0 - 5500'	5500'	5 $\frac{1}{2}$ "	14# K-55 ST&C	New
	5500' - 6100'	600'		15.5# K-55 ST&C	New

Cement Program

Surface	- Class "B" plus $\frac{1}{4}$ #/sx flocele plus 3% CaCl - cement to surface
Production	- 200 sacks 50-50 pozmix plus 18% salt plus .0075 CFR-2

5. The Operator's Minimum Specifications for Pressure Control

EXHIBIT "C" is a schematic diagram of the blowout preventer equipment. The BOP's will be hydraulically tested to half of working pressure after nipping up and after any use under pressure. Pipe rams will be operationally checked each 24-hour period, as will blind rams each time pipe is pulled out of the hole. Such checks of BOP will be noted on daily drilling reports.

Accessories to BOP will include an upper kelly cock, floor safety valve, drill string BOP and choke manifold with pressure rating equivalent to the BOP stack.

6. The Type and Characteristics of the Proposed Circulating Muds

Mud system will be gel-chemical with adequate stocks of sorptive agents on site to handle possible spills of fuel and oil on the surface. Heavier muds will be on location to be added if pressure requires.

<u>DEPTH</u>	<u>TYPE</u>	<u>WEIGHT #/gal.</u>	<u>VISCOSITY-sec./qt.</u>	<u>FLUID LOSS cc</u>
0 - 600'	Mud	8.5-8.8	50 - 80	-
600'-2000'	Gel-mud	8.5-8.8	26 - 28	-
2000'- TD	Gel-mud	9.5-9.8	35 - 45	20 or less

7. The Auxiliary Equipment to be Used

- (a) An upper kelly cock will be kept in the string.
- (b) A float will not be used at the bit.
- (c) A mud logging unit detecting device will be monitoring the system from 3000' to total depth.
- (d) A stabbing valve will be on the floor to be stabbed into the drill pipe when kelly is not in the string.

8. The Testing, Logging and Coring Programs to be Followed

- (a) Two DST's are anticipated.
- (b) The logging program will consist of a DLL and GR-CNL-FDC from TD to base of surface casing. Other logs will be determined at well site to best evaluate any shows.
- (c) No coring is anticipated.
- (d) Completion program will be to Acidize. See EXHIBIT "K".

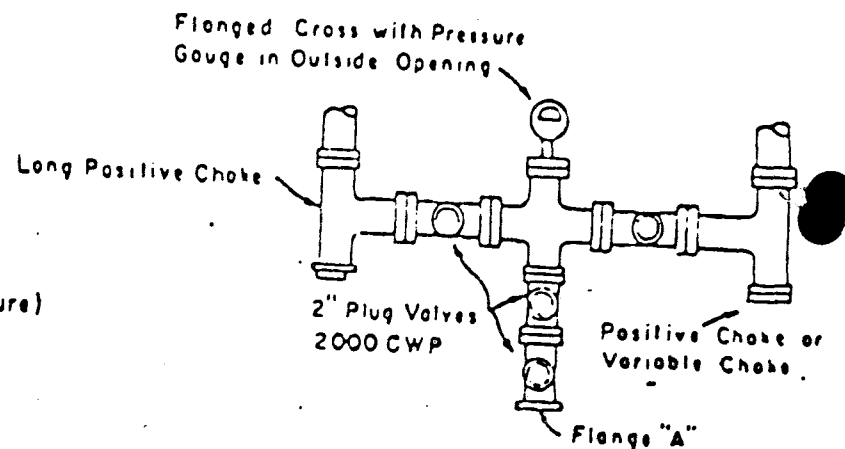
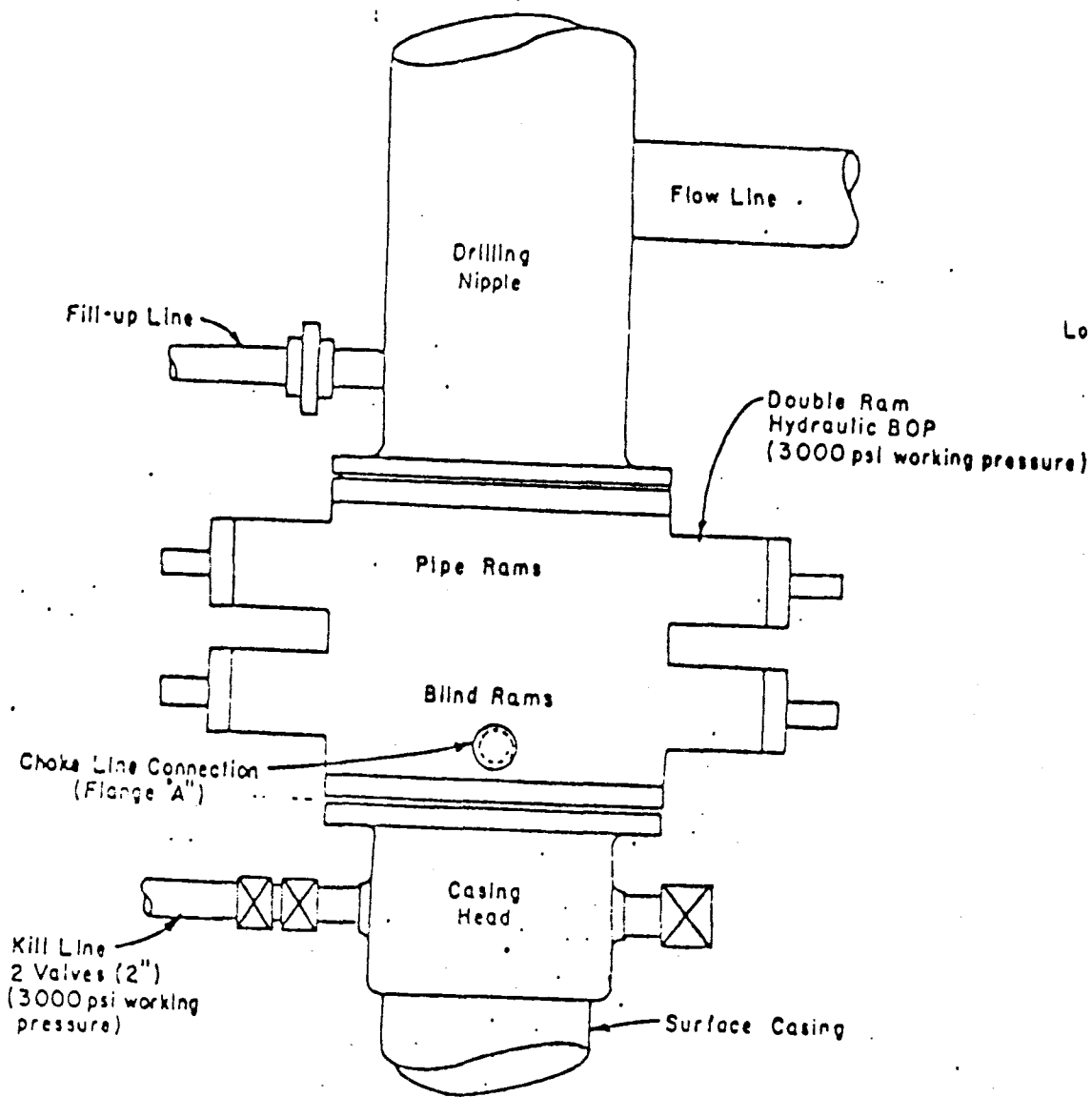
9. Any Anticipated Abnormal Pressure or Temperatures

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at the depths anticipated in this well. Bottom hole pressure expected is 2200.

No hydrogen sulfide or other hazardous fluids or gases have been found, reported or known to exist at these depths in the area.

10. Anticipated Starting Date and Duration of the Operations

The anticipated starting date is set for Aug. 15, 1980, or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 23 days after spudding the well and drilling to casing point.



PLAN VIEW-CHOKE MANIFOLD

**** FILE NOTATIONS ****

DATE: July 29, 1980

OPERATOR: Sadd Petroleum Corp.

WELL NO: 23-32

Location: Sec. 23 T. 40S R. 22E County: San Juan

File Prepared: ☒

Entered on N.I.D: ☒

Card Indexed: ☒

Completion Sheet: ☒

API Number 43-037-30575

CHECKED BY:

Petroleum Engineer: _____

Director: O.K. in accordance with the order issued in
Case 185-2 dated Jan 23, 1980

Administrative Aide: _____

APPROVAL LETTER:

Bond Required: ☐

Survey Plat Required: ☐

Order No. 185-2

O.K. Rule C-3 ☐

Rule C-3(c), Topographic Exception - company owns or controls acreage
within a 660' radius of proposed site

Lease Designation Prod

Plotted on Map ☐

Approval Letter Written ☐

Hot Line ☒

P.I. ☒

July 31, 1980

Ladd Petroleum Corporation
518 17th Street, Suite 830
Denver, Colorado 80202

RE: Well No. Federal 23-32,
Sec. 23, T. 40S, R. 22E
San Juan County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil well is hereby granted in accordance with the Order issued in Cause No. 185-2 dated January 23, 1980.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Petroleum Engineer
Home: 876-3001
Office: 533-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is Federal 23-32: 43-037-30575.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder
Petroleum Engineer

/bh

cc: USGS

June 2, 1981

Ladd Petroleum Corporation
518 - 17th Street, Suite #830
Denver, Colorado 80202

Re: SEE ATTACHED SHEET ON WELLS DUE

Gentlemen:

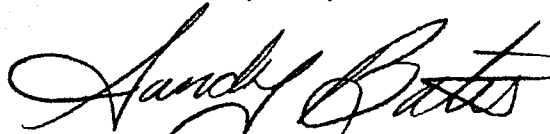
In reference to above mentioned wells, considerable time has gone by since approval was obtained from this office.

This office has not recieved any notification of spudding. If you do not intend to drill these wells, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If you plan on drilling these well locations at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

A handwritten signature in cursive script, reading "Sandy Bates".

SANDY BATES
CLERK-TYPIST

ATTACHED SHEET ON WELLS DUE

1. Well No. Federal # 7-23
Sec. 7, T.40S. R.23E.
San Juan County, Utah
2. Well No. Federal # "D" # 1A
Sec. 17, T.40S. R.23E.
San Juan County, Utah
3. Well No. Federal "D" # 2
Sec. 17, T.40S. R.23E.
San Juan County, Utah
4. Well NO. Federal #23-32
Sec. 23, T.40S. R.22E.
San Juan County, Utah

HALLIBURTON SERVICES JOB LOG

WELL NO. 1-23 LEASE State TICKET NO. 512197
 CUSTOMER W. W. Whitley PAGE NO. 1
 JOB TYPE Plug to Abandon DATE 6-6-81

FORM 2013 R-2

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1430							Safety meeting
1	1451	3	10			250	0	start water ahead
2	1454	3	7.3			250	0	water in start mixing cement
3	1457	3	2			250	0	cement mixed start water behind
4	1459	6	5.5			350	0	water in start displacement w/ mud
5	1507	-	-			0	0	displacement in plug set @ 5475' to 5375'
6	1517	3	10			250	0	start water ahead
7	1520	3	7.3			250	0	water in start mixing cement
8	1523	3	2			250	0	cement mixed start water behind
9	1524	6.6	5.3			400	0	water in start displacement w/ mud
10	1532	-	-			0	0	displacement in plug set @ 5282' to 5182'
11	1703	3	10			200	0	start water ahead
12	1706	3	7.3			300	0	water in start mixing cement
13	1709	3	2			200	0	cement mixed start water behind
14	1711	7	22			300	0	water in start displacement w/ mud
15	1714	-	-			0	0	displacement in plug set @ 2370' to 2270'
16	1758	3	10			200	0	start water ahead
17	1759	3	7.3			200	0	water in start mixing cement
18	1702	3	2			200	0	cement mixed start water behind
19	1703	3	10			300	0	water in start displacement w/ mud
20	706	-	-			0	0	displacement in plug set @ 1244' to 1144'
								Job Complete
								Thank you
								Ron, Terry & Troy

CUSTOMER



DIRECT ANY CORRESPONDENCE TO
P. O. DRAWER 1431
DUNCAN, OKLAHOMA 73533

PAGES

NO.

512197

FORM 1906 R-5

TERMS: **NET** DUE BY THE 20TH OF FOLLOWING MONTH. INTEREST CHARGED AFTER 60 DAYS FROM DATE OF INVOICE.

SERVICE CHARGE ON MATERIALS RETURNED

SUB TOTAL

TAX

TAX

TOTAL

3086 35

TAXES, PRICE CHANGES, AND OTHER APPLICABLE DATA WILL BE SHOWN ON OUR INVOICE TO BE SUBMITTED FOR PAYMENT AT A LATER DATE.

CUSTOMER

HALLIBURTON SERVICES JOB SUMMARY

FORM 2012 R-2

HALLIBURTON
LOCATION

DIVISION

BILLED ON
TICKET NO.

WELL DATA

FIELD _____ SEC. _____ TWP. _____ RNG. _____ COUNTY San Juan STATE Utah

FORMATION NAME _____ TYPE _____

FORMATION THICKNESS _____ FROM _____ TO _____

INITIAL PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD _____

PRESENT PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD _____

COMPLETION DATE _____ MUD TYPE _____ MUD WT. 11.4

PACKER TYPE _____ SET AT _____

BOTTOM HOLE TEMP. _____ PRESSURE _____

MISC. DATA _____ TOTAL DEPTH _____

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING						
LINER						
TUBING	<u>11</u>	<u>14</u>	<u>4" OH</u>	<u>0</u>	<u>5475</u>	
OPEN HOLE			<u>7 1/4</u>	<u>0</u>	<u>5575</u>	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

JOB DATA

CALLER OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>6-6</u>	DATE <u>6-6</u>	DATE <u>6-6</u>	DATE <u>6-6</u>
TIME <u>0950</u>	TIME <u>1330</u>	TIME <u>1451</u>	TIME <u>1705</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>R. Bolivar</u>	<u>0101</u>	<u>Cortez</u>
<u>T. Turner</u>	<u>47400</u>	
<u>T. Hays</u>	<u>8977</u>	
	<u>AL</u>	

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG		
HEAD		
PACKER		
OTHER		

MATERIALS

TREAT. FLUID	DENSITY	LB/GAL. API
DISPL. FLUID	DENSITY	LB/GAL. API
PROP. TYPE	SIZE	LB.
PROP. TYPE	SIZE	LB.
ACID TYPE	GAL.	%
ACID TYPE	GAL.	%
ACID TYPE	GAL.	%
SURFACTANT TYPE	GAL.	IN
NE AGENT TYPE	GAL.	IN
FLUID LOSS ADD. TYPE	GAL.-LB.	IN
GELLING AGENT TYPE	GAL.-LB.	IN
FRIC. RED. AGENT TYPE	GAL.-LB.	IN
BREAKER TYPE	GAL.-LB.	IN
BLOCKING AGENT TYPE	GAL.-LB.	
PERFPAC BALLS TYPE	QTY.	
OTHER		
OTHER		

DEPARTMENT CORP. ENG. - 1M9

DESCRIPTION OF JOB Plug to Abandon Well with 14 1/2 inch casing string & cement in 4 inch plug

JOB DONE THRU: TUBING ☒ CASING ☐ ANNULUS ☐ TBC./ANN. ☐

CUSTOMER REPRESENTATIVE X Alfred

HALLIBURTON OPERATOR R. K. Barlow COPIES REQUESTED 1

CEMENT DATA

STAGE	NUMBER OF SACKS	TYPE	API CLASS	BRAND	BULK SACKED	ADDITIVES	YIELD CU. FT./SK.	MIXED LBS./GAL.
<u>1</u>	<u>35</u>		<u>B</u>	<u>T. Deal</u>	<u>B</u>		<u>1.18</u>	<u>15.6</u>
<u>2</u>	<u>35</u>		<u>B</u>	<u>T. Deal</u>	<u>B</u>		<u>1.18</u>	<u>15.6</u>
<u>3</u>	<u>35</u>		<u>B</u>	<u>T. Deal</u>	<u>B</u>		<u>1.18</u>	<u>15.6</u>
<u>4</u>	<u>35</u>		<u>B</u>	<u>T. Deal</u>	<u>B</u>		<u>1.18</u>	<u>15.6</u>

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____

BREAKDOWN _____ MAXIMUM _____

AVERAGE _____ FRACTURE GRADIENT _____

SHUT-IN: INSTANT _____ 5-MIN. _____ 15-MIN. _____

HYDRAULIC HORSEPOWER

ORDERED _____ AVAILABLE _____ USED _____

AVERAGE RATES IN BPM

TREATING _____ DISPL. _____ OVERALL _____

CEMENT LEFT IN PIPE

FEET _____ REASON _____

SUMMARY

PRESLUSH: SBL-GAL. 10 TYPE H 20

LOAD & BKDN: SBL-GAL. _____ PAD: SBL-GAL. _____

TREATMENT: SBL-GAL. _____ DISPL: SBL-GAL. 55

CEMENT SLURRY: SBL-GAL. 73

TOTAL VOLUME: SBL-GAL. _____

REMARKS

CUSTOMER

CUSTOMER NO. 1000014110 LEASE Shore T-1000014110 WELL NO. 1-23 JOB TYPE Plug to Abandon Well DATE 6-6-81

NO. **B 615360**

[illegible]

NO. B 615360

*SACKS UNLESS OTHERWISE INDICATED

TOTAL	1421	83
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CUSTOMER

JOB LOG

1-23

LEASE

59A75

TICKET NO

560909

CUSTOMER

W W Whittle

PAGE NO.

JOB TYPE

Plug to Abandon

DATE _____

6-8-81

FORM 2013 R-2

7/10/11 - 11/11/11

CUSTOMER

NO. **B 61536**

DATE 07JUNE81	CUSTOMER ORDER NO.	WELL NO. AND FARM 1-23 STATE	COUNTY SAN JUAN	STATE UT
OWNER W.W. WHITLEY		CONTRACTOR BAYLESS #5	DELIVERED FROM CORTEZ, COLORADO	CODE 20420
CHARGE TO W.W. WHITLEY		DELIVERED TO WELL LOCATION		
MAILING ADDRESS 1705 COLO. STATE BANK BLDG.		PREPARED BY E. M. CHAVEL		
CITY & STATE DENVER, COLO. 80202		RECEIVED BY		

[illegible]

NO. B 615361

*SACKS UNLESS OTHERWISE INDICATED

TOTAL

CUSTOMER



REMIT TO
P. O. BOX 84737
DALLAS, TEXAS 75284
DIRECT ANY CORRESPONDENCE TO
P. O. DRAWER 1431
DUNCAN, OKLAHOMA 73533

PAGE 1 OF
PAGES

File - Well File
FIELD TICKET
NO. 560909

WELL NO. AND FARM: 1-23 STATE
COUNTY: SAN JUAN
STATE: UT.
DATE: 07 JUNE 1981
CHARGE TO: W.W. WHITLEY
OWNER: W.W. WHITLEY
ADDRESS: 1705 COLO STATE BANK BLDG. BAYLESS #5
CONTRACTOR: W.W. WHITLEY
CITY, STATE, ZIP: DENVER, CO. 80202
SHIPPED VIA: CO. VEHICLES
DELIVERED TO: LOCATION 1
ORDER NO.: 2
TOTAL ACID-30 DAYS: 3
TYPE AND PURPOSE OF JOB: BRADEN HEAD SQUEEZE TO PLUG TO ABANDON!
BULK MATERIAL DELIVERY TICKET NO.: B-6015-361
WELL TYPE: WILDCAT
CODE: WC

PRICE REFERENCE	SECONDARY REF. OR PART NO.	CODE		DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT	
		L	D		QTY.	MEAS.	QTY.	MEAS.			
R000-117				MILEAGE ON pump TRUCK	71	M.			2.00	142	00
R009-134	R009-019			PUMPING CHARGE.	450	FT.				610	00
# BULK MATERIALS TICKET 615361 ATTACHED										1015	59
				SERVICE CHARGE ON MATERIALS RETURNED		CU. FT.					
				SERVICE CHARGE		CU. FT.					
				TOTAL WEIGHT		LOADED MILES					

TAX REFERENCES
WAS JOB SATISFACTORILY COMPLETED? _____
WAS OPERATION OF EQUIPMENT SATISFACTORY? _____
WAS PERFORMANCE OF PERSONNEL SATISFACTORY? _____
SUB TOTAL
TAX
TAX
TOTAL: 1901 59
Customer or His Agent: [Signature]
Halliburton Operator: [Signature]

THIS IS NOT AN INVOICE

TAXES, PRICE CHANGES, AND OTHER APPLICABLE DATA WILL BE SHOWN ON OUR INVOICE TO BE SUBMITTED FOR PAYMENT AT A LATER DATE.

CUSTOMER

FORM 2013 K-2

MIDLAND
CORTEZ, CO

BILLED ON
TICKET NO. 560909

WELL DATA

JOB DATA

TOOLS AND ACCESSORIES

CALLER OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE 07 JUNE 81 TIME 1130	DATE 07 JUNE 81 TIME 1530	DATE 07 JUNE 81 TIME 1613	DATE 07 JUNE 81 TIME 1646

PERSONNEL AND SERVICE UNITS

DEPARTMENT C.A.F.
DESCRIPTION OF JOB PLUS TO ABANDON!

MATERIALS

TREAT. FLUID	DENSITY	LB/GAL- ⁰ API
DISPL. FLUID	DENSITY	LB/GAL- ⁰ API
PROP. TYPE	SIZE	LB.
PROP. TYPE	SIZE	LB.
ACID TYPE	GAL.	%
ACID TYPE	GAL.	%
ACID TYPE	GAL.	%
SURFACTANT TYPE	GAL.	IN
NE AGENT TYPE	GAL.	IN
FLUID LOSS ADD. TYPE	GAL-LB.	IN
GELLING AGENT TYPE	GAL-LB.	IN
FRIC. RED. AGENT TYPE	GAL-LB.	IN
BREAKER TYPE	GAL-LB.	IN
BLOCKING AGENT TYPE	GAL-LB.	
PERFPAC BALLS TYPE	QTY.	
OTHER		
OTHER		

CEMENT DATA

[illegible]

PRESSURES IN PSI

SUMMARY

VOLUMES

CIRCULATING _____	DISPLACEMENT _____	PRESLUSH: BBL-GAL. _____	TYPE <u>FRESH WATER</u>
BREAKDOWN _____	MAXIMUM _____	LOAD & BKDN: BBL-GAL. _____	PAD: BBL-GAL. _____
AVERAGE _____	FRACTURE GRADIENT _____	TREATMENT: BBL-GAL. _____	DISPL: BBL-GAL. <u>4.5</u>
SHUT-IN: INSTANT _____	5-MIN. _____	15-MIN. _____	CEMENT SLURRY: BBL-GAL. <u>21</u>
HYDRAULIC HORSEPOWER _____		TOTAL VOLUME: BBL-GAL. _____	
ORDERED _____	AVAILABLE _____	USED _____	REMARKS _____
AVERAGE RATES IN BPM _____		_____	
TREATING _____	DISPL. _____	OVERALL _____	_____
CEMENT LEFT IN PIPE _____		_____	
FEET _____	REASON _____	_____	

CUSTOMER



STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

February 2, 1982

Ladd Petroleum Corporation
518 17th Street, Suite #830
Denver, Colorado 80202

Re: See attached

Gentlemen:

In reference to the above mentioned wells, considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill these wells, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If we do not hear from your company within fifteen (15) days, we will assume you do not intend to drill these wells, and action will be taken to terminate the application. If you plan to drill this location at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

Cari Furse
Clerk Typist

Well No. Federal 23-32
Sec. 23, T. 40S, R. 22E
San Juan County, Utah

Well No. Federal 7-23
Sec. 7, T. 40S, R. 22E
San Juan County, Utah

Well No. Federal "D" #1-A
Sec. 17, T. 40S, R. 23E
San Juan County, Utah

Well No. Federal "D" #2
Sec. 17, T. 40S, R. 23E
San Juan County, Utah

FINAL NOTICE ON ALL ABOVE WELLS



STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

April 2, 1982

Ladd Petroleum Corporation
518 17th Street, Suite #830
Denver, Colorado 80202

Re: Well No. Federal 23-32
Sec. 23, T. 40S, R. 22E.
San Juan County, Utah

Well No. Federal "D" #1-A
Sec. 17, T. 40S, R. 23E.
San Juan County, Utah

Well No. Federal "D" #2
Sec. 17, T. 40S, R. 23E.
San Juan County, Utah

Gentlemen:

Approval to drill the above mentioned wells, which was granted in our letter of July 31, 1980 & July 31, 1980, is hereby terminated for failure to spud them within a reasonable period of time.

If and when you should decide to drill these wells, it will be necessary for you to again obtain the approval of this Division.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

Cleon B. Feight (CF)

Cleon B. Feight
Director

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other in-
structions on
reverse side)Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DEEP <input type="checkbox"/> Other <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. U-16766	
1b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A	
2. NAME OF OPERATOR Ladd Petroleum Corporation		7. UNIT AGREEMENT NAME N/A	
3. ADDRESSES OF OPERATOR 518 17th St., Suite 830, Denver, CO 80202		8. FARM OR LEASE NAME Ladd Federal	
4. LOCATION OF WELL (Report location clearly and in accordance with State (ownership)) At surface 1950' FNL & 1970' FEL (SW NE) At top prod. interval reported below At total depth same		9. WELL NO. 23-32	
14. PERMIT NO. 43-037-30575		10. FIELD AND POOL, OR WILDCAT S. W. Turners Bluff	
DATE ISSUED 7-29-80		11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 23-T40S-R22E	
15. DATE SPUDDED 1/19/81		12. COUNTY OR PARISH San Juan	
16. DATE T.D. REACHED 2/12/81		13. STATE Utah	
17. DATE COMPL. (Ready to prod.) 4/24/81		19. ELEV. CASINGHEAD 4495' GL.	
20. TOTAL DEPTH, MD & TVD 5673'		22. IF MULTIPLE COMPL., HOW MANY* 4	
21. PLUG, BACK T.D., MD & TVD 5641'		23. INTERVALS DRILLED BY 5673'	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 5438'-46' Lower Ismay		25. WAS DIRECTIONAL SURVEY MADE Yes	
26. TYPE ELECTRIC AND OTHER LOGS RUN DI-SFL EDC-CNI		27. WAS WELL CORED No	
28. CASING RECORD (Report all strings set in well)			
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE
8-5/8	24#	1267'	12 1/2
5-1/2	15.5#	5673'	12 1/2
		CEMENTING RECORD	
		350 sx "Lite"+200 sx C1."B"	
		300 sx Class "B"	
		AMOUNT PULLED	
29. LINER RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*
30. TUBING RECORD			
SIZE	DEPTH SET (MD)	PACKER SET (MD)	
2-7/8	5453'	---	
31. PERFORATION RECORD (Interval, size and number) 5438'-46' w/4 JSPF 36 shots			
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED	
5448'		800 gals. 28% HCL acid	
33. PRODUCTION			
DATE FIRST PRODUCTION 4/29/81		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) pumping w/ 1-3/4" pump, 3/4" & 7/8" rods	
DATE OF TEST 5/7/81		WELL STATUS (Producing or shut-in) Producing	
HOURS TESTED 24 hrs.	CHOKE SIZE	PROD'N. FOR TEST PERIOD 78	OIL—BBL. 20
FLOW. TUBING PRESS.	CASING PRESSURE	GAS—MCF. 94	WATER—BBL.
CALCULATED 24-HOUR RATE		OIL GRAVITY-API (CORR.)	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) used for fuel			
35. LIST OF ATTACHMENTS Terry Jones			

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED William K. [Signature]TITLE Production EngineerDATE 5/12/81

*(See Instructions and Spaces for Additional Data on Reverse Side)

LADD PETROLEUM CORPORATION
Federal #23-32
SW/NE Sec 23-T40S-R22E
San Juan Co., Utah

<u>FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>DESCRIPTION, CONTENTS, ETC.</u>
Upper & Lower Issay	5297'	5404'	(DST #1) IO: 30 min. IS: 60 min. FO: 30 min. FS: 60 min. Slight blow throughout test recovered 30' of drlg mud 600 cc mud in sampler Pre-Flow IHP: $\frac{2860}{2904}$ IFP: $\frac{13}{80}$ FFP: $\frac{27}{93}$ ISIP: $\frac{40}{106}$ Final Flow IHP: $\frac{27}{93}$ FFP: $\frac{27}{93}$ FSIP: $\frac{27}{93}$ FHP: $\frac{2807}{2824}$
Desert Creek	5420'	5468'	(DST #2) IO: 30 min. IS: 60 min. FO: 90 min. FS: 180 min. Pre-Flow IHP: $\frac{2860}{2833}$ IFP: $\frac{380}{413}$ FFP: $\frac{1071}{1119}$ ISIP: $\frac{2025}{2042}$ Final Flow IHP: $\frac{1071}{1092}$ FFP: $\frac{1852}{1786}$ FSIP: $\frac{2025}{2028}$ FHP: $\frac{2917}{2833}$ 2542' gas, 124' oil, 124' G & MCO 558' G & OCM, 62' G & MCW, 2043' GCW

DEVIATION SURVEYS

DEPTH

1759
2252
2725
3328
3850
4350
4844

DEVIATION

1-1/2
2
1/2
3/4
1/2
3/4
3/4

NOTARY PUBLIC
My commission expires

Harold J. Walker
8-15-82

UTAH

Federal 23-32 (E) S.W. Turner Bluff Prospect, San Juan Co., Utah (LPC)
W.I. 1,000, 5575' Desert Creek, AFE: \$413,500 DHC: \$267,150

- 4-22-81 MIRU NL well service.
- 4-23-81 TOH w/2-7/8" tbg and SN - WIH w/2-7/8" tbg, anchor, perforated sub, seating nipple and anchor catcher. Landed tbg w/seating nipple @ 5453'. TIH w/1-3/4" pump, 3/4 rods and 7/8" rods. SDFN.
DC: \$1,800 CC: \$368,116
- 4-24-81 RDMO completion unit.
- 4-29-81 Pumped 48 BO + 25 BW/15 hrs. on 8/64" SPM w/1 3/4" pump.
- 4-30-81 Pumped 43 BO and 25 BW/15 hrs. on 8/64" SPM w/1 3/4" pump. (Gas engine shut down during night - fuel line freeze up).
- 5-01-81 Pumped 10 BO ± 200 BW/24 hrs. (95% water) on 8/64" SPM w/1 3/4" pump.
- 5-2-81 Down 24 hrs. Broken engine shive.
- 5-3-81 15 BO, 122 BW, 24 hr test.
- 5-4-81 24 BO, 125 BW, 24 hr test.
- 5-5-81 Pumped 59 BO and 98 BW in 24 hrs on 10/74" SPM w/1-3/4" pump.
- 5-06-81 Pumped 171 BO + 91 BW/24 hrs. on 10-74" SPM w/1-3/4" pump. (Well flwd. out casing for 8 hrs.)
- 5-7-81 Pumped 77.6 BO + 94 BW/24 hrs. on 10-74" SPM w/1-3/4" pump.
- 5-8-81 Pumped 72 BO + 100 Bw/24 hrs. on 10-74" SPM w/1-3/4" pump. Will use test reported 5-7-81 as State Potential Test: Pumped 78 BO + 94 BW/24 hrs. on 10-74" SPM w/1-3/4" pump.
FINAL REPORT.

UTAH

Federal # 23-32 (E. W. Turner Bluff Prospect) San Juan Cty, Utah
(LPC) W.I. 1.000, 5575' Desert Creek, AFE: \$415,500 DHC: \$267,150

3-5-81 45 days. Swabbing Fluid: 172 bbls fluid, 51 BO,
121 BW. Released rig 6:00 P.M. 3/4/81. Waiting on
pumping unit.
DC: \$1700.00
CC: \$366,316

3-6-81 46 days. WO Pumping unit. Final Report.
CC: \$366,316

UTAH

Federal # 23-32 (E) S. W. Turner Bluff Prospect, San Juan County,
Utah, (LPC) W.I. 1.000, 5575' Desert Creek, AFE: \$413,500 DHC:\$267,150

2-25-81 38 days. MI M.L. McCullough Well Service. RU- W. O.tubing.
Start in hole w/ 2 7/8" tubing. SDFN.
DC: \$1500
CC: \$327,117

2/26/81 39 days. Finish in hole w/bit & 2-7/8" tubing. TD 5478'.
Pressure test to 3500 psi. Circulated w/2% KCL water.
Pulled up tbg to 5448'. Spotted 800 gals. 28% HCL acid to
4648'. TOOH. RU Jetronics to log & perforate. Ran correla-
tion log from 5577' - 4600'. Perforated from 5438'-46' w/4 JSPF
(32 holes) w/steel hollow point carrier gun. RD Jetronics.
SDFN.
DC: \$22,607 (tubing cost included) CC: \$349,729

2/27/81 40 days. TIH w/SN on 2-3/8" tbg. to 4649'. RU HOWCO. Displaced
perf acid into formation. AIR=1.5 BPM, ATP=650#. ISIP=1300#.
15 min. SITP=650#. Opened well to test tank. Flwd. back
20 BLW and died. Lowered tbg to 5416'. Made 6 swab runs.
Well started flwg. Swabbed & flwd. 40 BO + 150 BW in 6 hrs
(138 BWUL). SIFN. This AM, 14 hrs. SITP=500#.
DC: \$8,562 CC: \$358,286

2/28/81 40 days. 14 hr. SITP 500#. Open to test tank on 1-1/2"
choke. Well dead in 30 min. Remove BOP & land tubing in
well head. Swab tubing 3 hrs. - Well flowed. Left flowing
to test tank on 1/4" choke. Rig rel. this A.M., well died.
SI for pressure build up. Recovered 70 BW and 8 BO while
swabbing. 55 BW and 2 BO flowing. 125 BW and 10 BO total.
13 bbls of load water left to recover.
DC: \$3,100 CC: \$361,386

3/01/81 41 days. 24 hrs. SIP -0- psi. Will call for swab unit.
CC: \$361,386

3/02/81 42 days. 48 hrs. SIP -0- psi. MI swabbing unit.
CC: \$361,386

3/03/81 43 days. MI R&R Well Service. RU to swab. Recovered 30 bbls
oil + 60 bbls water in 4 hrs. Fluid level @ 1200'. All load
recovered + 47 bbls. formation water.
DC: \$1,615 CC: \$363,001

3/04/81 44 days. 10 hr. fluid level standing at 1500'. 14 hr. SI
300# blew down 10 min. Swabbed back 175 bbls fluid; 135 BW,
40 BO. SDFN.
DC: \$1,615 CC: \$364,616

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Form 9-329 Rev. Feb 76
OMB 42-RO356

MONTHLY REPORT
OF
OPERATIONS

Lease No. 42-016766

Communitization Agreement No. _____

Field Name S. W. Turners Bluff

Unit Name _____

Participating Area _____

County San Juan State Utah

* Operator Ladd Petroleum Corporation

FINAL REPORT

☐ Amended Report

The following is a correct report of operations and production (including status of all unplugged wells) for the month of

OCTOBER, 19 82

(See Reverse of Form for Instructions)

This report is required by law (30 U.S.C. 189, 30 U.S.C. 359, 25 U.S.C. 396 d), regulation (30 CFR 221.60), and the terms of the lease. Failure to report can result in the assessment of liquidated damages (30 CFR 221.54 (j)), shutting down operations, or basis for recommendation to cancel the lease and forfeit the bond (30 CFR 221.53).

Well No.	Sec. & 1/4 of 1/4	TWP	RNG	Well Status	Days Prod.	*Barrels of Oil	*MCF of Gas	*Barrels of Water	Remarks
23-32	23 NW NE	40S	22E	POW	-0-	-0-	-0-	-0-	<p><u>Ladd Federal 23-32</u></p> <p><u>API #</u> 43-03730575</p> <p>Water produced on the Fed. 23-32 is trucked to the Shell Gov't C lease, WDW #2 and injected.</p> <p><i>OP name change</i></p> <p>* LEASE Sold To: P.M. PETROLEUM MANAGEMENT 1600 BROADWAY SUITE 1700 DENVER, Co. 80202</p>

*If none, so state.

Disposition of production (Lease, Participating Area, or Communitized Area basis)

	Oil & Condensate (BBLs)	Gas (MCF)	Water (BBLs)
*On hand, Start of Month	<u>374</u>	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
*Produced	<u>-0-</u>	NONE	-0-
*Sold	<u>284</u>	NONE	XXXXXXXXXXXXXXXXXXXX
*Spilled or Lost	<u>-0-</u>	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
*Flared or Vented	XXXXXXXXXXXXXXXXXXXX	NONE	XXXXXXXXXXXXXXXXXXXX
*Used on Lease	NONE	NONE	XXXXXXXXXXXXXXXXXXXX
*Injected	NONE	NONE	-0-
*Surface Pits	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	-0-
*Other (Identify)	<u><90> B5.W</u>	NONE	NONE
*On hand, End of Month	<u>-0-</u>	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
*API Gravity/STU Content	<u>35</u>	N/A	XXXXXXXXXXXXXXXXXXXX

Authorized Signature: M. J. Walker

Address: 830 Denver Club Building
Denver, CO 80202

Title: Senior Production Clerk

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

January 18, 1983

Ladd Petroleum Corporation
518 17th Street, Suite #830
Denver, Colorado 80202

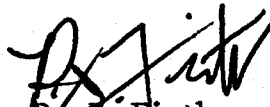
Re: Well No. Federal #23-32
Sec. 23, T. 40S, R. 22E.
San Juan County, Utah

Gentlemen:

Our records indicate that the above referenced well has been on production since April 1981. Therefore, in order to finalize the records for this well, we request that the Well Completion or Recompletion Report and Log, Form OGC-3 (State) or Form 9-330 (Federal) be submitted.

Your prompt attention to providing this submittal will be appreciated.

Very truly yours,



R. J. Firth
Chief Petroleum Engineer

RJF/cf
Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other in-
structions on
reverse side)Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> Other _____		5. LEASE DESIGNATION AND SERIAL NO. U-16766	
b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. BEVER. <input type="checkbox"/> Other _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME n/a	
2. NAME OF OPERATOR Ladd Petroleum Corporation		7. UNIT ASSIGNMENT NAME n/a	
3. ADDRESS OF OPERATOR 830 Denver Club Bldg., Denver, CO 80202		8. FARM OR LEASE NAME Ladd Federal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements) At surface 1950' FNL & 1970' FEL (SW NE) At top prod. interval reported below At total depth same as above		9. WELL NO. 23-32	
14. PERMIT NO. 43-037-30575		10. FIELD AND POOL, OR WILDCAT S.W. Turner's Bluff	
DATE ISSUED		11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 23 T40S R22E	
15. DATE SPUDDED 1-19-81		12. COUNTY OR PARISH San Juan	
16. DATE T.D. REACHED 2-11-81		13. STATE Utah	
17. DATE COMPL. (Ready to prod.) 4-24-81		14. ELEVATIONS (OF, FROM, TO, OR, ETC.) 4506' RKB	
18. ELEV. CASINGHEAD 4495'		19. ELEV. CASINGHEAD	
20. TOTAL DEPTH, MD & TVD 5673'		21. PLUG, BACK T.D., MD & TVD 5478'	
22. IF MULTIPLE COMPLETIONS, HOW MANY?		23. INTERVALS DRILLED BY 5673'	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 5438' - 5446', Lower Ismay		25. WAS DIRECTIONAL SURVEY MADE no	
26. TYPE ELECTRIC AND OTHER LOGS RUN Dual Induction-SFL-Compensated Neutron-Formation Density-GR-CAL		27. WAS WELL CORED no	
28. CASING RECORD (Report all strings set in well)			
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE
8 5/8"	24	1267'	12 1/4"
5 1/2"	15.5	5673'	7 7/8"
CEMENTING RECORD		AMOUNT PULLED	
644 cu ft BJ Lite + 272 cu ft Class B			
426 cu ft Class B			
29. LINER RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*
30. TUBING RECORD		PACKER SET (MD)	
SIZE	DEPTH SET (MD)		
2 3/8"	5453'	none	
31. PERFORATION RECORD (Interval, size and number) 5438-5446, .40"; 32 holes (4 JSPF)			
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED	
5438-5446		800 gallons 28% HCl Acid	
33. PRODUCTION			
DATE FIRST PRODUCTION 4-29-81		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) 160 Pumping unit w/1 3/4" barrel pump	
WELL STATUS (Producing or shut-in) producing			
DATE OF TEST 5-8-81	HOURS TESTED 24	CHOKES SIZE --	PROD'N. FOR TEST PERIOD 78.0
OIL—BSL. 78.0	GAS—MCF. 28	WATER—BSL. 94.0	GAS-OIL RATIO 358.9
FLOW. TUBING PRESS. --	CASING PRESSURE 25	CALCULATED 24-HOUR RATE 78.0	GAS—MCF. 28
WATER—BSL. 94.0		OIL GRAVITY-API (CORR.)	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Used for fuel			
TEST WITNESSED BY C. Phillips			
35. LIST OF ATTACHMENTS Attached are copies of logs.			
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records			
SIGNED <i>Michael D. Zachary</i>		TITLE Midland District Engineer	
DATE 1-4-83			

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

87. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF: CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CURSION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES				88. GEOLOGIC MARKERS	
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH
Lower Ismay	5316'	5437'	DST (5420-5468'). IF: OPN w/good blo 10# in 3 min; 7 min, 15#; 12 min, 30#; 26 min, 60#; 30 min 65#; FF: OPN w/strong blo (1/8" ck) 22# 5 min; 4# 20 min; 3#, (1/8" ck) 40 min; 28# 55 min; 30# 65 min; 32# 75 min; 38# unloading gas and oil from DP after FFP.	Cutler Evaporites Organ Rock Tongue Cedar Mesa SS Honaker Trail Upper Ismay Lower Ismay	3250' 3434' 3810' 4249' 5316' 5437'
Desert Creek	5534'	5646'	Water production.	Paradox Shale Desert Creek	5494' 5646'



UTAH
NATURAL RESOURCES

To: John
From: Vicky
Date: 9-18-85

- ☐ For your information and file.
☐ For necessary action.
☐ Reply directly to origin with a copy to this office.
☐ Please draft a reply for signature of _____ and _____

return by the following date _____

☒ Other This is in Amdall
as DSCR but all info
here indicates ISMY. Which?
on " " " "

ISMY



PETROLEUM MANAGEMENT

SUITE 1700 • 1600 BROADWAY • DENVER • COLORADO 80202 • PHONE (303) 861-2470

February 28, 1986

BUREAU OF LAND MANAGEMENT
DISTRICT OFFICE
Box 970
Moab, UT 84532

RECEIVED
MAR 03 1986

**DIVISION OF
OIL, GAS & MINING**

Att: Greg Noble

RE: #23-32 Federal
NE/4 Sec. 23, T40S-R22E
San Juan County, UT

Federal Lease No. U-16766

Dear Greg:

At the request of Mike Wade of your offices, we have prepared and enclosed in quadruplicate a Sundry Notice of Subsequent Report of Shut-In Well and request approval to the temporary shut in due to the uneconomical production on the well.

Please advise.

Yours very truly,

Margo J. Medina

MM:s
Enclosures

cc: BLM
P.O. Box 7
Monticello, UT 84535
Att: Rich McClure

BLM
2303-324 St. State, #301
Salt Lake City, UT 84111

State of Utah
Division of Oil Gas & Mining
3 Triad Center, #350
Salt Lake City, UT 84180-1203

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE
(Other instructions on reverse side)Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-16766

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal

9. WELL NO.

#23-32

10. FIELD AND POOL, OR WILDCAT

11. SEC. T. R. M. OR BLM AND
SURVEY OR AREA

Sec. 23, T40S-R22E

14. PERMIT NO.

4303730575 ISMY

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

4495' GR

DIVISION OF
OIL, GAS & MINING

12. COUNTY OR PARISH

San Juan

13. STATE

UT

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

☐
☐
☐
☐

FULL OR ALTER CASING

☐
☐
☐
☐

FRACTURE TREAT

MULTIPLE COMPLETION

SHOOT OR ACIDIZE

ABANDON*

REPAIR WELL

CHANGE PLANS

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

☐
☐
☐

REPAIRING WELL

☐
☐
☐

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT*

(Other) Shut In Well

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

This Sundry Notice is to serve as a request for BLM approval to temporarily Shut-In the #23-32 Federal well due to it's uneconomical production and the fact that some production equipment has been removed and installed on the #3-25-3E Federal completion in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 25, T40S-R22E.

Due to the oil price decline, the production on the #23-32 was deemed uneconomical and was shut in effective 2/10/86. Some production equipment was then moved to the #3-25-3E Federal. Oil price increases will be required for the production on the #23-32 Federal to be deemed economical; we will take such consideration if and when this occurs.

18. I hereby certify that the foregoing is true and correct

SIGNED

Robert M. Peterson

TITLE

Partner

DATE

2/28/86

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL IF ANY:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

TO BE FILLED IN TRIPLICATE
(Other instructions on re-
verse side)

Expires August 31, 1988

5. LEASE DESIGNATION AND SERIAL NO.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

1. ☒ OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR

P&M Petroleum Management (303) 861-2470

3. ADDRESS OF OPERATOR

1600 Broadway, Suite 1700, Denver, Co. 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface

Surface: 1950' FNL & 1970' FEL (SWNE) Bottom: Same

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

43-037-30575

4,506' KB

6. IF INDIA **U-16766** OR TRIBE NAME

7. UNIT AGREEMENT NAME **N/A**

8. FARM OR LEASE NAME **N/A**

9. WELL NO. **Federal**

10. FIELD AND POOL, OR WILDCAT **23-32**

11. SEC. 1, 2, 3, 4, OR NEAR, AND SURVEY OR ARMA **Turner's Bluff**

12. COUNTY OR PARISH 13. STATE **23-40s-22e SLBM**

San Juan Ut.

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

(Other) ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

ABANDON* ☐

CHANGE PLANS ☒

Change Operator

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐

FRACTURE TREATMENT ☐

SHOOTING OR ACIDIZING ☐

(Other) ☐

REPAIRING WELL ☐

ALTERING CASING ☐

ABANDONMENT* ☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

Hay Hot Oil, Inc. will assume operatorship and responsibility for the well upon UDOGM's approval of its application to convert the existing oil well to an injection well. Hay Hot Oil, Inc. has applied for the injection well in its own name and will supply a \$20,000 letter of credit as the bond for the well.

* Eff date 3-1-90 per P.M. Petroleum Mgt.

18. I hereby certify that the foregoing is true and correct

SIGNED **Robert W. Peterson** TITLE **Partner**

DATE **2-12-90**

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____

DATE _____

CONDITIONS OF APPROVAL, IF ANY:

cc: BLM-MDO(3), UDOGM(2), Wood

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

REPRINT IN TRIPLICATE
(Other instructions on reverse side)

Excluded from Public Sale
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	5. LEASE DESIGNATION AND SERIAL NO. <u>U-16766</u>
2. NAME OF OPERATOR <u>P&M Petroleum Management (303) 861-2470</u>	6. IF INDIAN <u>N/A</u> OR TRIBE NAME
3. ADDRESS OF OPERATOR <u>1600 Broadway, Suite 1700, Denver, Co. 80202</u>	7. UNIT AGREEMENT NAME <u>N/A</u>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface	8. FARM OR LEASE NAME <u>N/A</u>
	9. WELL NO. <u>Federal</u>
	10. FIELD AND POOL, OR WILDCAT <u>23-32</u>
	11. SEC. 1, 2, 3, 4, OR ALL, AND SURVEY OR AREA <u>Turner's Bluff</u>
	12. COUNTY OR PARISH <u>San Juan</u> 13. STATE <u>Ut.</u>
14. PERMIT NO. <u>43-037-30575</u>	15. ELEVATIONS (Show whether OF, RT, GR, etc.) <u>4,506' KB</u>

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETION <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANE <input type="checkbox"/>	(Other) <input type="checkbox"/>	(Other) <input type="checkbox"/>

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *
Change Operator

Hay Hot Oil, Inc. will assume operatorship and responsibility for the well upon UDOGM's approval of its application to convert the existing oil well to an injection well. Hay Hot Oil, Inc. has applied for the injection well in its own name and will supply a \$20,000 letter of credit as the bond for the well.

18. I hereby certify that the foregoing is true and correct

SIGNED Robert M. Peterson TITLE Partner DATE 2-12-90

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

cc: BLM-MDO(3), UDOGM(2), Wood

*See Instructions on Reverse Side

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR INJECTION WELL - UIC FORM 1

OPERATOR Hay Hot Oil, Inc.
ADDRESS P.O. Box 9
Montezuma Creek, Ut. 84534
(801) 651-3469

Well name and number: Federal 23-32
Field or Unit name: Turner's Bluff Lease no. U-16766
Well location: QQ SWNE section 23 township 40s range 22e county San Juan

Is this application for expansion of an existing project? . . Yes ☐ No ☒

Will the proposed well be used for: Enhanced Recovery? . . Yes ☐ No ☒
Disposal? Yes ☒ No ☐
Storage? Yes ☐ No ☒

Is this application for a new well to be drilled? Yes ☐ No ☒

If this application is for an existing well,
has a casing test been performed on the well? Yes ☐ No ☒

Date of test: To be done when well is converted

API number: 43-037-30575

Proposed injection interval: from 5,438' to 5,462'
5,478' 5,492'
5,598' 5,640'

Proposed maximum injection: rate 3,000 bwpd pressure 2,800 psig

Proposed injection zone contains ☒ oil, ☒ gas, and/or ☐ fresh water within 1/2 mile of the well.

IMPORTANT: Additional information as required by R615-5-2 should accompany this form.

List of Attachments: 7 pages of text, 3 pages of maps, 9 pages of water analyses, & 2 logs

I certify that this report is true and complete to the best of my knowledge.

Name Brian Wood

Title Consultant

Phone No. (505) 984-8120

Signature Brian Wood

Date 2-2-90

(State use only)

Application approved by _____

Title _____

Approval Date _____

Comments:

Hay Hot Oil, Inc.
Federal 23-32 Disposal Well Application
1950' FNL & 1970' FEL, Sec. 23, T. 40 S., R. 22 E.
San Juan County, Utah

PAGE 1

FEDERAL 23-32 WELL

R615-5-1.

1. Operator: Hay Hot Oil, Inc.

Address: P.O. Box 9, Montezuma Creek, Ut. 84534

2. A plat is attached showing all wells within a half mile of the proposed disposal well. There are 3 wells, all are in Section 23. P&M's Federal 23-32 (1950 FN & 1970 FE) will be converted into the disposal well. The other two wells (Whitley's 1-23 @ 1330 FS & 560 FE and Pan American's B-1 @ 910 FS & 1980 FE) are plugged and abandoned. No wells are known to be planned in the half mile radius.

3. Approval is requested to convert an existing oil well into a disposal well. The well is a half mile south of Hay Hot Oil's state approved produced water evaporation ponds. The recent closure of another company's pond and more produced water increased demand for Hay Hot Oil's disposal service. A disposal well would increase disposal capacity during winter when evaporation is minimal and at other peak loading times.

Water will be trucked from Hay Hot Oil's ponds to the disposal well where it will be pumped into one of three existing tanks. From the tanks, water will pass through a cartridge type (50 to 125 size) filtration unit and a pump. The skid mounted pump will be an internal combustion 100hp type 324 triplex pump with aluminum bronze fluid end. Tank level and pressure controls will be installed for safety. Only pipelines will be a suction line from the tanks to the pump and a discharge line from the pump to the wellhead.

The water will then be pumped down 2 7/8" EUE 6.4# tubing tested at 5,000 psi. A 5-1/2" X 2-7/8" Baker or Halliburton water injection type packer will be set at 5,400'. Water will then be injected into as many as three zones (Lower Ismay [5,438'-5,462' & 5,478'-5,492'] and Desert Creek [5,598'-5,640']).

Hay Hot Oil, Inc.
Federal 23-32 Disposal Well Application
1950' FNL & 1970' FEL, Sec. 23, T. 40 S., R. 22 E.
San Juan County, Utah

PAGE 2

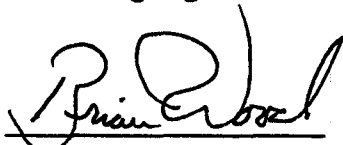
4. The Federal 23-32 well has produced from the Lower Ismay (5,438'-5,446') since 1981. The other two wells within a half mile were P&A after Ismay and Desert Creek DSTs.
5. The Lower Ismay and Desert Creek pools will be affected. Both are known oil and gas producing limestone zones. Water within each zone is very saline. The Lower Ismay is a 97' thick zone (5,437'-5,534'). The Desert Creek is a 112' thick zone (5,534'-5,646').
6. Dual Induction-SFL-Compensated Neutron- Formation Density-GR-CAL logs were submitted with the completion report. Single copies of DIL and CNL/FDC logs are being submitted with this application.
7. Water to be injected is trucked from oil and gas wells in the Paradox Basin. All water will pass through Hay Hot Oil's evaporation ponds before injection. Only water approved for disposal in the ponds will be injected. Nine analyses of water samples from seven different wells within two miles are attached. The first analysis is from the Lower Ismay of the disposal well itself. The water is slightly alkaline (5.75-6.6 pH), but very saline (chlorides are 114,000 to 161,000 mg/l and TDS are 188,091 to 259,012 mg/l). Dominant source and destination of the water are the same, i.e., water produced from the Ismay or Desert Creek will be injected into the Ismay or Desert Creek.
8. With the exception of the Federal 23-32 well itself, there are no other operating wells within a half mile. Surface owners within a half mile are the Bureau of Land Management (Section 24) and the Utah Div. of State Lands & Forestry (Sections 14 & 23). Application has been made to the latter for a surface use site lease for the wellsite. Lessors are the Bureau of Land Management (N2 and SW4 Sec. 23 & Sec. 24) and the Utah Div. of State Lands & Forestry (Sec. 14 and SE4 Sec. 23). Lessees are:

Hay Hot Oil, Inc.
Federal 23-32 Disposal Well Application
1950' FNL & 1970' FEL, Sec. 23, T. 40 S., R. 22 E.
San Juan County, Utah

PAGE 3

<u>Legal Description</u>	<u>Lease</u>	<u>Lessee</u>
SE4 Sec. 14	ML-43083	Merrion Oil & Gas
SW4 Sec. 14	ML-44237	Robert W. Atkins
N2 Sec. 23	U-16766	P&M et al
SW4 Sec. 23	U-18433	P&M et al
N2SE4 & SESE Sec. 23	ML-35887	P&M et al
SWSE Sec. 23	ML-37651	Shanley-Montara
NW4 Sec. 24	U-42474	P&M et al
SW4 Sec. 24	U-41696	P&M et al

9. I hereby certify that the aforementioned surface owners, lessees, and lessors have been sent by certified mail a copy of this application, excluding logs.



Brian Wood

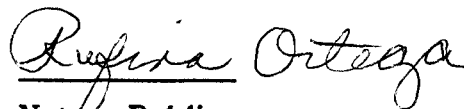
2-2-90

Date

The foregoing was acknowledged before me this 2nd day of February, 1990 by Brian Wood. Witness my hand and official seal.

My commission expires:

4-5-92



Notary Public

**Hay Hot Oil, Inc.
Federal 23-32 Disposal Well Application
1950' FNL & 1970' FEL, Sec. 23, T. 40 S., R. 22 E.
San Juan County, Utah**

PAGE 4

R615-5-2

1. Plats showing the location of the injection well, all abandoned or active wells, surface owners, and producing leases are attached.
2. Dual Induction-SFL-Compensated Neutron- Formation Density-GR-CAL logs were submitted with the completion report. Single copies of DIL and CNL/FDC logs are being submitted with this application.
3. No cement bond log has been run. However, if requested by the state, a cement bond log can be run when the additional zones (5,478'-5,492 and 5,598'-5,640') are perforated.
4. Dual Induction-SFL-Compensated Neutron- Formation Density-GR-CAL logs were submitted with the completion report. Single copies of DIL and CNL/FDC logs are submitted with this application.
5. Three strings of casing were run and cemented as follows:
 - Conductor Pipe: 13-3/8", 32.75 lb., K-55, 8 rd. th., ST&C
cemented from 150' to surface
 - Surface Casing: 8-5/8" in 12-1/2" hole, 24 lb, K-55, LT&C, 8 rd. th.
cemented at from 1267' to surface with 350 sx BJ
lite followed by 200 sx Class "B" cement with 2%
CaCl₂. Good circulation of cement to surface.
 - Production Casing: 5-1/2" in 7-7/8" hole, 15.5 lb, K-55, LT&C, 8 rd. th
cemented at 5673' with 300sx Class "B" cmt. with
6-1/4 lb. Gilsonite/sk, 1 lb. salt/sk, and 0.6% D-31.Casing will be tested by running a 5-1/2" packer on 2-7/8" EUE tubing. Set the packer at approximately 5,400'. Set a standing valve in the 2-7/8" EUE tubing. Seat nipple and pressure test to 5,000 psi. Load the annulus between 5-1/2" casing and 2-7/8" EUE tubing and pressure test to 3,000 psi for 10 minutes.

Hay Hot Oil, Inc.
Federal 23-32 Disposal Well Application
1950' FNL & 1970' FEL, Sec. 23, T. 40 S., R. 22 E.
San Juan County, Utah

PAGE 5

6. Water to be injected is trucked from oil and gas wells in the Paradox Basin. All water will pass through Hay Hot Oil's evaporation ponds before injection. Only water approved for disposal in the ponds will be injected. Nine analyses of water samples from seven different wells within two miles are attached. The first analysis is from the Lower Ismay of the disposal well itself. The water is slightly alkaline (5.75-6.6 pH), but very saline (chlorides are 114,000 to 161,000 mg/l and TDS are 188,091 to 259,012 mg/l). Dominant source and destination of the water are the same, i.e., water produced from the Ismay or Desert Creek will be injected into the Ismay or Desert Creek. Average injection rate will be 2,000 bwpd subject to weather and volume available. Maximum injection rate will be 3,000 bwpd.
7. Analyses of the fluid to be injected and the receiving fluid are attached. Injecting and receiving fluids are from the same formations.
8. Average injection pressure will be 2,000 psi. Maximum injection pressure will be 2,800 psi.
9. The calculated cement top in the production casing annulus is 4,300'. Cement should be approximately 1,138' above the highest perforation (5,438') in the Lower Ismay formation. There is over 1,100' of cement to prevent injected water from going out of zone. Furthermore, the only fresh water aquifers (Bluff, Entrada, & Navajo) penetrated by the well are also protected by casing and cement. The base of the lowest fresh water sand is 1,260' (cement was run from 1,267' to surface). That is 4,178' above the top perforation in the Lower Ismay formation.
Most of the 1,100' between the top of the cement and the top perforation in the Lower Ismay is dense limestone with short intervals of shale and tight limestone. This interval has practically no porosity or permeability. It would be nearly impossible to inject water or other fluids out of the porous disposal zones through the barren zones above the Lower Ismay

Hay Hot Oil, Inc.
Federal 23-32 Disposal Well Application
1950' FNL & 1970' FEL, Sec. 23, T. 40 S., R. 22 E.
San Juan County, Utah

PAGE 6

porosity. Ten feet of the dense limestone would be an adequate barrier. At the low injection rates of two barrels per minute or less, any natural fractures would not extend far.

10. Below is a list of the lithology through which the well bore passes:

<u>FORMATION</u>	<u>INTERVAL</u>	<u>THICKNESS</u>
Bluff Sandstone	0-350'	350'
Summerville Ss, Silt, Mudst	350-570'	220'
Entrada Sandstone	570-970'	400'
Carmel Ss, Silt, Sh, Ls	970-990'	20'
Navajo Sandstone	990-1260'	270'
Kayenta Sandstone	1260-1290'	30'
Wingate Sandstone	1290-1490'	200'
Chinle Shale	1490-2160'	670'
Shinarump Congl	2160-2178'	18'
Moenkopi Sh, Silt, Ss, Ls	2178-2268'	90'
Organ Rock Ss, Silt, Sh	2268-2430'	162'
DeChelly Sandstone	2430-3250'	820'
Cutler Ss, Congl, Sh, Ls	3250-3810'	560'
Cedar Mesa Sandstone	3810-4403'	593'
Hermosa Sh, Ls	4403-5316'	913'
Upper Ismay Dolo, Ls	5316-5437'	121'
Lower Ismay Dolo, Ls	5437-5534'	97'
Desert Creek Dolo, Ls	5534-5646'	112'
"C" Shale	5646-5673'	27'
Total Depth	5673'	Total Depth

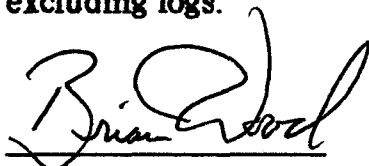
11. Only two existing wells are within a half mile of the Federal 23-32 well. Pan American's B-1 is 2,420' south @ 910 FS & 1980 FE. It was drilled and plugged in 1957. Plugs were set @ 5,285' (25 sx), 4,903' (20 sx), 3,130' (20 sx), 2,022' (20 sx), 1,264' (25 sx), and surface marker (20 sx). Whitley's State 1-23 well is 2,447' southeast @ 1330 FS & 560 FE. It was drilled and plugged in 1981. Fours plugs of 35 sx each were set @ 5,475'-

Hay Hot Oil, Inc.
Federal 23-32 Disposal Well Application
1950' FNL & 1970' FEL, Sec. 23, T. 40 S., R. 22 E.
San Juan County, Utah

PAGE 7

5,375', 5,282'-5,182', 2,370'-2,270', and 1,244'-1,144'. The plugs insure there will be no communication among zones and wells.

12. I hereby certify that all operators, owners, and surface owners within a half mile have been sent by certified mail a copy of this application, excluding logs.



Brian Wood


2-2-90

Date

The foregoing was acknowledged before me this 2nd day of February, 1990 by Brian Wood. Witness my hand and official seal.

My commission expires:

4-5-92

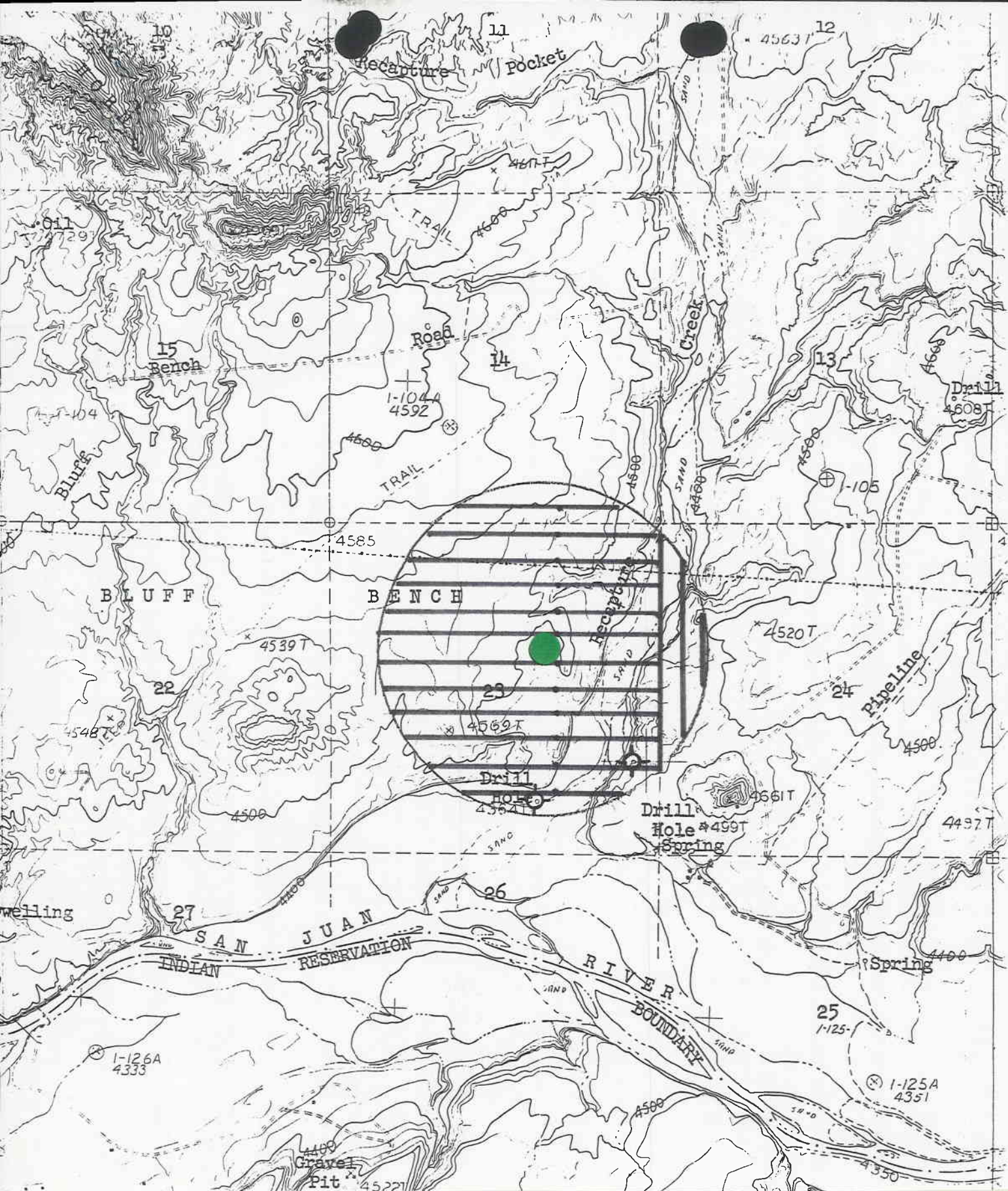



Notary Public





Federal 23-32 Well: ●

P&A wells: ⊕



Federal Surface: 

State Surface: 

Federal 23-32 Well: 



Chemical Consultants

All Types Oil Field Chemicals and Services

P.O. Box 421
Farmington, New Mexico 87401

WATER ANALYSIS TEST REPORT

Lower Ismay

COMPANY P&M PETROLEUM MANAGEMENT						SHEET NUMBER	
FIELD						DATE 3-9-83	
COUNTY OR PARISH						STATE	
LEASE OR UNIT W.W. WHITLEY			WELL(S) NAME OR NO. 23-32		WATER SOURCE (FORMATION)		
DEPTH, FT.	BHT, F	SAMPLE SOURCE	TEMP, F	WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY	
TYPE OF OIL		API GRAVITY 0	TYPE OF WATER <input type="checkbox"/> PRODUCED WATER <input type="checkbox"/> INJECTION WATER OTHER				

WATER ANALYSIS PATTERN (NUMBER BESIDE ION SYMBOL INDICATES me/l * SCALE UNIT)

Na ⁺ 20	15	10	5	0	5	10	15	20 Cl ⁻
Ca ⁺⁺								HCO ₃ ⁻
Mg ⁺⁺								SO ₄ ⁼
Fe ⁺⁺⁺								CO ₃ ⁼

DISSOLVED SOLIDS

CATIONS	me/l *	mg/l *
Total Hardness	88.0	4400.0
Sodium, Na ⁺ (calc.)	3196.0	73508.0
Calcium, Ca ⁺⁺	80.0	1600.0
Magnesium, Mg ⁺⁺	8.0	97.2
Iron (Total), Fe ⁺⁺⁺	2.2	40.0
ANIONS	me/l *	mg/l *
Chloride, Cl ⁻	3272.0	116000.0
Sulfate, SO ₄ ⁼	13.0	625.0
Carbonate, CO ₃ ⁼	0	0
Bicarbonate, HCO ₃ ⁻	.8	49.0
Hydroxyl, OH ⁻	0	0
Sulfide, S ⁼		
Phosphate - Meta, PO ₃ ⁼		
Phosphate - Ortho, PO ₄ ⁼		

DISSOLVED GASES

Hydrogen Sulfide, H ₂ S	mg/l *
Carbon Dioxide, CO ₂	mg/l *
Oxygen, O ₂	mg/l *

PHYSICAL PROPERTIES

pH	6.57
Eh (Redox Potential)	MV
Specific Gravity	
Turbidity, JTU Units	
Total Dissolved Solids (Calc.)	194622.0 mg/l *
Stability Index @ F	
CaSO ₄ Solubility @ F	mg/l *
Max. CaSO ₄ Possible (Calc.)	mg/l *
Max. BaSO ₄ Possible (Calc.)	mg/l *
Residual Hydrocarbons	ppm (Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

ENGINEER MIKE JONES	DIST. NO.	ADDRESS BOX 421 FARMINGTON, N.M.	OFFICE PHONE 327-7775	HOME PHONE
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Chemical Consultants

All Types Oil Field Chemicals and Services

P.O. Box 421
Farmington, New Mexico 87401

WATER ANALYSIS TEST REPORT

Desert Creek

COMPANY P&M PETROLEUM MANAGEMENT							SHEET NUMBER
FIELD							DATE 3-9-83
LEASE OR UNIT W.W. WHITLEY					WELL(S) NAME OR NO. Fed. 2-25-3E		STATE
DEPTH, FT.		BHT, F		SAMPLE SOURCE	TEMP, F	WATER, BBL/DAY	OIL, BBL/DAY
TYPE OF OIL		API GRAVITY 0		TYPE OF WATER <input type="checkbox"/> PRODUCED WATER <input type="checkbox"/> INJECTION WATER OTHER _____			

WATER ANALYSIS PATTERN (NUMBER BESIDE ION SYMBOL INDICATES me/l * SCALE UNIT)

Na ⁺ 20	15	10	5	0	5	10	15	20 Cl ⁻
Ca ⁺⁺								HCO ₃ ⁻
Mg ⁺⁺								SO ₄ ⁼
Fe ⁺⁺⁺								CO ₃ ⁼

DISSOLVED SOLIDS

CATIONS

	me/l *	mg/l *
Total Hardness	130.4	6520.0
Sodium, Na ⁺ (calc.)	4080.0	93840.
Calcium, Ca ⁺⁺	96.0	1920.0
Magnesium, Mg ⁺⁺	34.4	418.0
Iron (Total), Fe ⁺⁺⁺	.2	3.5

ANIONS

	me/l *	mg/l *
Chloride, Cl ⁻	4202.0	149000.0
Sulfate, SO ₄ ⁼	6.6	315.0
Carbonate, CO ₃ ⁼	0	0
Bicarbonate, HCO ₃ ⁻	.7	43.0
Hydroxyl, OH ⁻	0	0
Sulfide, S ⁼		
Phosphate - Meta, PO ₃ ⁼		
Phosphate - Ortho, PO ₄ ⁼		

DISSOLVED GASES

Hydrogen Sulfide, H ₂ S	_____	mg/l *
Carbon Dioxide, CO ₂	_____	mg/l *
Oxygen, O ₂	_____	mg/l *

PHYSICAL PROPERTIES

pH	6.27
Eh (Redox Potential)	_____ MV
Specific Gravity	_____
Turbidity, JTU Units	_____
Total Dissolved Solids (Calc.)	249722.0 mg/l *
Stability Index @ _____ F	_____
CaSO ₄ Solubility @ _____ F	_____ mg/l *
Max. CaSO ₄ Possible (Calc.)	_____ mg/l *
Max. BaSO ₄ Possible (Calc.)	_____ mg/l *
Residual Hydrocarbons	_____ ppm (Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

ENGINEER MIKE JONES	DIST. NO.	ADDRESS BOX 421 Farmington, N.M.	OFFICE PHONE 327-7775	HOME PHONE
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Chemical Consultants

All Types Oil Field Chemicals and Services

P.O. Box 421
Farmington, New Mexico 87401

WATER ANALYSIS TEST REPORT

Lower Esmeralda & Rosent Creek

COMPANY P&M PETROLEUM MANAGEMENT						SHEET NUMBER	
FIELD						DATE 3-9-83	
LEASE OR UNIT W.W. WHITLEY				WELL(S) NAME OR NO. FED. 1-25		WATER SOURCE (FORMATION)	
DEPTH, FT.		BHT, F		SAMPLE SOURCE		TEMP, F	
TYPE OF OIL		API GRAVITY 0		TYPE OF WATER <input type="checkbox"/> PRODUCED WATER <input type="checkbox"/> INJECTION WATER		OTHER	

WATER ANALYSIS PATTERN (NUMBER BESIDE ION SYMBOL INDICATES me/l * SCALE UNIT)

Na ⁺ 20	15	10	5	0	5	10	15	20 Cl ⁻
Ca ⁺⁺								HCO ₃ ⁻
Mg ⁺⁺								SO ₄ ⁼
Fe ⁺⁺⁺								CO ₃ ⁼

DISSOLVED SOLIDS

CATIONS	me/l *	mg/l *
Total Hardness	108.0	5400.0
Sodium, Na ⁺ (calc.)	3118.0	71714.0
Calcium, Ca ⁺⁺	90.4	1808.0
Magnesium, Mg ⁺⁺	17.6	214.0
Iron (Total), Fe ⁺⁺⁺	.15	2.75
ANIONS	me/l *	mg/l *
Chloride, Cl ⁻	3215.2	114000.0
Sulfate, SO ₄ ⁼	10.5	505
Carbonate, CO ₃ ⁼	0	0
Bicarbonate, HCO ₃ ⁻	.6	36.6
Hydroxyl, OH ⁻	0	0
Sulfide, S ⁼		
Phosphate - Meta, PO ₃ ⁼		
Phosphate - Ortho, PO ₄ ⁼		

DISSOLVED GASES

Hydrogen Sulfide, H ₂ S	mg/l *
Carbon Dioxide, CO ₂	mg/l *
Oxygen, O ₂	mg/l *

PHYSICAL PROPERTIES

pH	6.58
Eh (Redox Potential)	MV
Specific Gravity	
Turbidity, JTU Units	
Total Dissolved Solids (Calc.)	191658.0 mg/l *
Stability Index @ F	
CaSO ₄ Solubility @ F	mg/l *
Max. CaSO ₄ Possible (Calc.)	mg/l *
Max. BaSO ₄ Possible (Calc.)	mg/l *
Residual Hydrocarbons	ppm (Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

ENGINEER MIKE JONES	DIST. NO.	ADDRESS BOX 421 Farmington, N.M.	OFFICE PHONE 327-7775	HOME PHONE
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Chemical Consultants

All Types Oil Field Chemicals and Services

P.O. Box 421
Farmington, New Mexico 87401

WATER ANALYSIS TEST REPORT

Desert Creek

COMPANY P&M PETROLEUM MANAGEMENT						SHEET NUMBER	
FIELD						DATE 3-9-83	
LEASE OR UNIT W.W. WHITLEY				WELL(S) NAME OR NO. FED. 1-24		WATER SOURCE (FORMATION)	
DEPTH, FT.		BHT, F		SAMPLE SOURCE		TEMP, F	
TYPE OF OIL		API GRAVITY 0		TYPE OF WATER <input type="checkbox"/> PRODUCED WATER <input type="checkbox"/> INJECTION WATER		OTHER	

WATER ANALYSIS PATTERN (NUMBER BESIDE ION SYMBOL INDICATES me/l * SCALE UNIT)

Na ⁺ 20	15	10	5	0	5	10	15	20 Cl ⁻
Ca ⁺⁺								HCO ₃ ⁻
Mg ⁺⁺								SO ₄ ⁼
Fe ⁺⁺⁺								CO ₃ ⁼

DISSOLVED SOLIDS

CATIONS

	me/l *	mg/l *
Total Hardness	144.0	7200.0
Sodium, Na ⁺ (calc.)	3951.	90865.0
Calcium, Ca ⁺⁺	104.0	2080.
Magnesium, Mg ⁺⁺	40.0	486.0
Iron (Total), Fe ⁺⁺⁺	.07	1.4
ANIONS		
Chloride, Cl ⁻	4089.5	145000.0
Sulfate, SO ₄ ⁼	4.6	220
Carbonate, CO ₃ ⁼	0	0
Bicarbonate, HCO ₃ ⁻	.6	36.6
Hydroxyl, OH ⁻	0	0
Sulfide, S ⁼		
Phosphate - Meta, PO ₃ ⁼		
Phosphate - Ortho, PO ₄ ⁼		

DISSOLVED GASES

Hydrogen Sulfide, H ₂ S	_____	mg/l *
Carbon Dioxide, CO ₂	_____	mg/l *
Oxygen, O ₂	_____	mg/l *

PHYSICAL PROPERTIES

pH	6.34
Eh (Redox Potential)	_____ MV
Specific Gravity	_____
Turbidity, JTU Units	_____
Total Dissolved Solids (Calc.)	243323.0 mg/l *
Stability Index @ _____ F	_____
@ _____ F	_____
CaSO ₄ Solubility @ _____ F	_____ mg/l *
@ _____ F	_____ mg/l *
Max. CaSO ₄ Possible (Calc.)	_____ mg/l *
Max. BaSO ₄ Possible (Calc.)	_____ mg/l *
Residual Hydrocarbons	_____ ppm (Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

ENGINEER MIKE JONES	DIST. NO.	ADDRESS BOX 421 Farmington, N.M.	OFFICE PHONE 327-7775	HOME PHONE
------------------------	-----------	-------------------------------------	--------------------------	------------

Chemical Consultants

All Types Oil Field Chemicals and Services

P.O. Box 421
Farmington, New Mexico 87401

WATER ANALYSIS TEST REPORT

Desert Creek

COMPANY P&M PETROLEUM MANAGEMENT						SHEET NUMBER	
FIELD						DATE 3-9-83	
LEASE OR UNIT W.W. WHITLEY				WELL(S) NAME OR NO. FED. 1-25-3E		COUNTY OR PARISH	
DEPTH, FT.				BHT, F		STATE	
SAMPLE SOURCE		TEMP, F		WATER, BBL/DAY		OIL, BBL/DAY	
TYPE OF OIL		API GRAVITY 0		TYPE OF WATER <input type="checkbox"/> PRODUCED WATER <input type="checkbox"/> INJECTION WATER		OTHER	

WATER ANALYSIS PATTERN (NUMBER BESIDE ION SYMBOL INDICATES me/l * SCALE UNIT)

Na ⁺ 20	15	10	5	0	5	10	15	20 Cl ⁻
Ca ⁺⁺								HCO ₃ ⁻
Mg ⁺⁺								SO ₄ ⁼
Fe ⁺⁺⁺								CO ₃ ⁼

DISSOLVED SOLIDS

CATIONS	me/l *	mg/l *
Total Hardness	86.4	4320.0
Sodium, Na ⁺ (calc.)	3088.0	71024.0
Calcium, Ca ⁺⁺	65.6	1312.0
Magnesium, Mg ⁺⁺	20.8	253.0
Iron (Total), Fe ⁺⁺⁺	.08	1.5
ANIONS	me/l *	mg/l *
Chloride, Cl ⁻	3159.0	112000.0
Sulfate, SO ₄ ⁼	14.9	715.0
Carbonate, CO ₃ ⁼	0	0
Bicarbonate, HCO ₃ ⁻	.5	30.5
Hydroxyl, OH ⁻	0	0
Sulfide, S ⁼		
Phosphate - Meta, PO ₃ ⁼		
Phosphate - Ortho, PO ₄ ⁼		

DISSOLVED GASES

Hydrogen Sulfide, H ₂ S	mg/l *
Carbon Dioxide, CO ₂	mg/l *
Oxygen, O ₂	mg/l *

PHYSICAL PROPERTIES

pH	6.6
Eh (Redox Potential)	MV
Specific Gravity	
Turbidity, JTU Units	
Total Dissolved Solids (Calc.)	188091 mg/l *
Stability Index @ F	
CaSO ₄ Solubility @ F	mg/l *
Max. CaSO ₄ Possible (Calc.)	mg/l *
Max. BaSO ₄ Possible (Calc.)	mg/l *
Residual Hydrocarbons	ppm (Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

ENGINEER MIKE JONES	DIST. NO.	ADDRESS Box 421 Farmington, N.M.	OFFICE PHONE 327-7775	HOME PHONE
------------------------	-----------	-------------------------------------	--------------------------	------------

UNICHEM INTERNATIONAL

707 NORTH LEECH

P.O.BOX 1499

HOBBS, NEW MEXICO 88240

Desert Creek

COMPANY : P&M PETROLEUM
DATE : 06/28/85
FIELD, LEASE & WELL : WELL #2-25
SAMPLING POINT:
DATE SAMPLED : 06/20/85

SPECIFIC GRAVITY = 1.16
TOTAL DISSOLVED SOLIDS = 236638
PH = 5.75

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	800	16032
MAGNESIUM	(MG)+2	280	3403.
SODIUM	(NA), CALC.	3030.	69677.
ANIONS			
BICARBONATE	(HCO3)-1	.4	24.4
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	10.4	500
CHLORIDES	(CL)-1	4100	147000
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		21
BARIUM	(BA)+2	0	.66
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = 5.492

SCALING INDEX	TEMP	
	30C	48.8C
	86F	120F
CARBONATE INDEX	-.25	.426
CALCIUM CARBONATE SCALING	UNLIKELY	LIKELY
CALCIUM SULFATE INDEX	-2.3	-2.0
CALCIUM SULFATE SCALING	UNLIKELY	UNLIKELY

IONIC STRENGTH IS TOO HIGH FOR SULFATE METHOD
IONIC STRENGTH IS TOO HIGH FOR CARBONATE METHOD

UNICHEM INTERNATIONAL

Desert Creek

707 NORTH LEECH

P.O.BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : P&M PETROLEUM

DATE : 06/28/85

FIELD, LEASE & WELL : WELL #1-24

SAMPLING POINT:

DATE SAMPLED : 06/20/85

SPECIFIC GRAVITY = 1.174

TOTAL DISSOLVED SOLIDS = 259012

PH = 6.18

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	980	19639.
MAGNESIUM	(MG)+2	300	3646.
SODIUM	(NA), CALC.	3229.	74251.
ANIONS			
BICARBONATE	(HCO3)-1	.4	24.4
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	9.3	450
CHLORIDES	(CL)-1	4500	161000
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	
IRON(TOTAL)	(FE)		1.1
BARIUM	(BA)+2	0	.66
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = 6.178

SCALING INDEX	TEMP	
	30C	48.8C
	86F	120F
CARBONATE INDEX	.629	1.49
CALCIUM CARBONATE SCALING	LIKELY	LIKELY
CALCIUM SULFATE INDEX	0.0	.116
CALCIUM SULFATE SCALING	UNLIKELY	LIKELY

IONIC STRENGTH IS TOO HIGH FOR SULFATE METHOD
IONIC STRENGTH IS TOO HIGH FOR CARBONATE METHOD

UNICHEM INTERNATIONAL

707 NORTH LEECH

P.O.BOX 1499

HOBBS, NEW MEXICO 88240

COMPANY : P&M PETROLEUM

DATE : 06/27/85

FIELD, LEASE & WELL : WELL #1-25 *Kin Huraoct*

SAMPLING POINT:

DATE SAMPLED : 06/20/85

Desert Creek & Indian Ismy

SPECIFIC GRAVITY = 1.132

TOTAL DISSOLVED SOLIDS = 196809

PH = 6.56

		ME/L	MG/L
CATIONS			
CALCIUM	(CA)+2	640	12825.
MAGNESIUM	(MG)+2	80	972.
SODIUM	(NA), CALC.	2699.	62061.

		ME/L	MG/L
ANIONS			
BICARBONATE	(HCO3)-1	.8	48.8
CARBONATE	(CO3)-2	0	0
HYDROXIDE	(OH)-1	0	0
SULFATE	(SO4)-2	18.7	900
CHLORIDES	(CL)-1	3400	120000

		ME/L	MG/L
DISSOLVED GASES			
CARBON DIOXIDE	(CO2)	NOT RUN	
HYDROGEN SULFIDE	(H2S)	NOT RUN	
OXYGEN	(O2)	NOT RUN	

IRON(TOTAL)	(FE)		2.2
BARIUM	(BA)+2	0	.54
MANGANESE	(MN)	NOT RUN	

IONIC STRENGTH (MOLAL) = 4.319

SCALING INDEX	TEMP	
	30C	48.8C
	86F	120F
CARBONATE INDEX	.299	.813
CALCIUM CARBONATE SCALING	LIKELY	LIKELY
CALCIUM SULFATE INDEX	.282	.782
CALCIUM SULFATE SCALING	LIKELY	LIKELY

IONIC STRENGTH IS TOO HIGH FOR CARBONATE METHOD



**WESTERN
TECHNOLOGIES
INC.**

400 South Lorena Avenue
Farmington, New Mexico 87401
(505) 327-4966

LABORATORY REPORT

HAY HOT OIL, INC.

Client Permits West, Inc.
P.O. Box 1105
Monticello, Utah 84535
Attn: Brian Wood

Job No. 840573
Lab./Invoice No. 3170142
Date of Report 11/15/84

Reviewed By *Steven P. Hoppe*

Project Brine Water Analyses
Location San Juan County, Utah

Material/Specimen Brine Water
Source Holmes Federal 34-13 Well
Test Procedure Shown Below

Sampled By PWI/Personnel Date 9/18/84
Submitted By PWI/Personnel Date 9/18/84
Authorized By PWI/B. Wood Date 9/18/84

RESULTS

One sample was received and analyzed in accordance with requirements for the State of Utah Division of Environmental Health. The results of the analysis with a listing of the methods is shown below:

Sample # 840573

Method Number

Brine Water

Barium, mg/L	<1.	200.7,	EPA
Cadmium, mg/L	0.58	213.2,	EPA
Chromium, mg/L	<0.005	218.3,	EPA
Copper, mg/L	0.37	220.2,	EPA
Zinc, mg/L	0.60	200.7,	EPA
Boron, mg/L	35.	200.7,	EPA
Calcium mg/L	15000.	215.1,	EPA
Iron, mg/L	7.	200.7,	EPA
Magnesium, mg/L	3400.	242.1,	EPA
Potassium, mg/L	690.	258.1,	EPA
Sodium, mg/L	55400.	273.1,	EPA
Hexavalent Chromium, mg/L	<0.05	312 B,	Std. Method
pH, standard units	6.3	150.1,	EPA
Oil and Grease, mg/L	1.2	413.1,	EPA
Sulfate, mg/L	641.	375.4,	EPA
Chloride, mg/L	128,000.	325.3,	EPA
Ammonia, mg/L	430.	350.3,	EPA
Alkalinity, mg/L	64.3	310.1,	EPA
Fluoride, mg/L	1.2	340.2,	EPA
Total Dissolved Solids, mg/L	235,000.		
Ion Balance	0.95	160.1,	EPA

Copies to: Client (3)

PERMITS WEST, INC.

PROVIDING PERMITS for the ENERGY INDUSTRY.

37 Verano Loop, Santa Fe, New Mexico 87505

(505) 984-8120

February 2, 1990

RECEIVED
FEB 05 1990

DIVISION OF
OIL, GAS & MINING

Dianne Nielson, Director
Ut. Div. of Oil, Gas, & Mining
3 Triad Center, Suite 350
Salt Lake City, Ut. 84180-1203

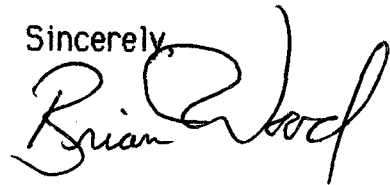
Dear Ms. Nielson:

On behalf of Hay Hot Oil, Inc., I have enclosed 3 copies of UIC Form 1 and supporting documents. Hay Hot Oil proposes to acquire P&M Petroleum Management's Federal 23-32 oil well and convert it into a disposal well. The disposal well will supplement its UDOGM approved evaporation ponds.

Hay Hot Oil has posted a \$20,000 letter of credit as a bond. I will forward the letter of credit to you when I receive it from the bank next week.

Please call me if you have any questions, or if there is anything I can do to expedite ^{approval} approval. Thank you.

Sincerely,



Brian Wood

cc: Roach



Norman H. Bangerter

Governor

Dee C. Hansen

Executive Director

Dianne R. Nielson, Ph.D.

Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple

3 Triad Center, Suite 350

Salt Lake City, Utah 84180-1203

801-538-5340

February 14, 1990

Hay Hot Oil, Inc.
c/o Mr. Brian Wood
37 Verano Loop
Santa Fe, New Mexico 87505

Dear Mr. Wood:

Re: Disposal Well Application, Federal 23-32 Well, Section 23, Township 40 South, Range 22 East, San Juan County, Utah

The application you submitted on behalf of Hay Hot Oil, Inc. has been reviewed by Division staff. Following is a list of items that must be addressed before we can proceed with your approval.

- 1) A change of operator notice must be filed by the current operator of the well.
- 2) The current casing/cementing program does not adequately protect underground sources of drinking water, i.e. the Wingate Sandstone should be behind pipe and cement. Submit a procedure for squeezing cement outside the 5 1/2 " casing from approximately 1490' to bottom of surface casing.
- 3) A cement evaluation log should be run after the remedial cementing work to evaluate total cement adequacy behind pipe.
- 4) An injectivity and step/rate test should be performed to establish proper maximum allowable injection rate and pressure.
- 5) The Division does not have the proper documentation on plug placement in the 1-23 well located to the southeast of the subject well. Please submit a copy of the plugging report showing this information.

Page 2
Brian Wood
February 14, 1990

If you have any questions concerning these requirements, please call Dan Jarvis or me at (801) 538-5340.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gil Hunt".

Gil Hunt
UIC Manager

ldc
cc: Hay Hot Oil, Inc.
WOI27

PERMITS WEST, INC.

PROVIDING PERMITS for the ENERGY INDUSTRY

37 Verano Loop, Santa Fe, New Mexico 87505

(505) 984-8120

February 17, 1990

Gil Hunt, UIC Manager
Utah Div. of Oil, Gas, & Mining
3 Triad Center, Suite 350
355 West North Temple
Salt Lake city, Ut. 84180-1203

RECEIVED
FEB 21 1990

Dear Gil,

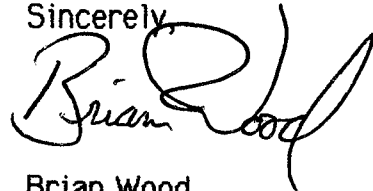
Below is a point by point reply to the deficiencies raised in your Hay Hot Oil letter of February 14.

- 1) P&M Petroleum Management will submit a Sundry Notice to reflect the operator change.
- 2) Hay Hot Oil, Inc. agrees to perform the requested squeeze job. P&M, as engineering advisor for the conversion, will submit the requested data.
- 3) A cement evaluation log will be run as requested.
- 4) An injectivity and step/rate test will be performed as requested.
- 5) P&M supervised the plugging of Whitley's State 1-23 (1330 FS & 560 FE 23-40s-22e; ML-035887) and will submit the requested plugging data.

For economy we want to perform the squeeze, log, and test at the time of the well conversion. Can you structure your approval in such a manner that steps 2), 3), and 4) are conditions of approval? That is, they need not be done until the well was conditionally approved, but must be done prior to operation as an injection well. We would hate to spend over \$5,000 only to have the well disapproved.

Please call me if you have any questions.

Sincerely,



Brian Wood

cc: Roach



Norman H. Bangerter

Governor

Dee C. Hansen

Executive Director

Dianne R. Nielson, Ph.D.

Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple

3 Triad Center, Suite 350

Salt Lake City, Utah 84180-1203

801-538-5340

February 22, 1990

Newspaper Agency Corporation
Legal Advertising
157 Regent Street
Salt Lake City, Utah 84110

Gentlemen:

Re: Cause No. UIC-119

Enclosed is a Notice of Agency Action before the Division of Oil, Gas and Mining, Department of Natural Resources, State of Utah.

It is requested that this notice be published **ONCE ONLY**, as soon as possible.

Upon completion of this request, please send proof of publication and statement of cost to the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

Sincerely,

Lisa D. Clement

Lisa D. Clement
Administrative Secretary
Oil and Gas

Enclosure
WOI35/6



Norman H. Bangerter

Governor

Dee C. Hansen

Executive Director

Dianne R. Nielson, Ph.D.

Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple

3 Triad Center, Suite 350

Salt Lake City, Utah 84180-1203

801-538-5340

February 22, 1990

San Juan Record
P.O. Box 879
937 East Highway 666
Monticello, Utah 84535-0879

Gentlemen:

Re: Cause No. UIC-119

Enclosed is a Notice of Agency Action before the Division of Oil, Gas and Mining, Department of Natural Resources, State of Utah.

It is requested that this notice be published ONCE ONLY, as soon as possible.

Upon completion of this request, please send proof of publication and statement of cost to the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

Sincerely,

Lisa D. Clement
Administrative Secretary
Oil and Gas

Enclosure
WOI35/7

Publication Notices were sent to the following:


Newspaper Agency Corporation
Legal Advertising
157 Regent Street
Salt Lake City, Utah 84110

San Juan Record
P.O. Box 879
937 East Highway 666
Monticello, Utah 84535-0879

Hay Hot Oil, Inc.
P.O. Box 9
Montezuma Creek, Utah 84534

Bureau of Land Management
P.O. Box 970
Moab, Utah 84532

Mike Strieby
Environmental Protection Agency
999 18th Street, Suite 500
Denver, Colorado 80202



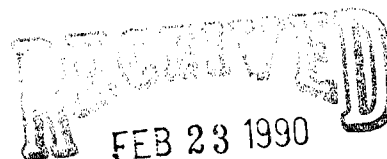
Lisa Clement
Administrative Secretary
February 22, 1990
WOI35/8



PETROLEUM MANAGEMENT

SUITE 1700 • 1600 BROADWAY • DENVER • COLORADO 80202 • PHONE (303) 861-2470

February 22, 1990



DIVISION OF
OIL, GAS & MINING

Mr. Gil Hunt, UIC Manager
State of Utah
Department of Natural Resources
Division of Oil, Gas & Mining
355 W. North Temple
Three Triad Center, Suite 350
Salt Lake City, Ut 84180-1203

RE: Permit for Conversion of
Producing Well to Water
Disposal Well
Federal #23-32 Well
1970' FEL & 1950' FNL
Sec. 23, T40S-R22E
San Juan County, UT

Dear Mr. Hunt:

In reference to your letter concerning the Application for converting the above captioned well to a water disposal well, I will answer your questions in the order you presented them.

1. A copy of the change of operator form is enclosed. Three copies of this Sundry Notice, with the request for change of operator have also been sent to the BLM.
2. The 5 1/2" casing will be perforated @ 1500-01' W/4 jets located 90 degrees apart. A retrievable bridge plug will be set above the Lower Ismay perforations. The valve on the braden head will be opened. A retrievable packer will be run and set @ 1400'. A pump truck will pressure up the tubing and attempt to establish circulation between the 8 5/8" surface casing and the 5 1/2" production casing. If circulation is established, the annulus will be cemented W/100 sx Class 'G' cement. The 100 sx cement should fill up about 600' behind the 5 1/2" production casing. If circulation is not established in the annulus between the 8 5/8" and 5 1/2" casing, the perforations will be squeezed W/100 sx Class 'B' cement.

3. A cement bond log will be run with the hole loaded with water to check the cement bond and the top of primary cement job of the 5 1/2" production casing and also the cement squeeze job @ 1500' depth.
4. After the well has been perforated in the Lower Ismay and Desert Creek formations and stimulated with acid, the 2 7/8" EUE tubing will be run with packer. A 1000 psi pressure will be placed on the annulus between the tubing and 5 1/2" casing. The well will then be tested for injectivity by pumping produced water down the tubing.

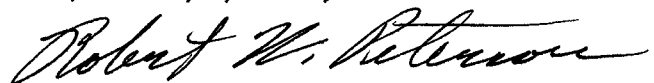
First, the water will be pumped at 500 psi tubing pressure for 15 minutes, and the water injection rate will be recorded. This procedure will be repeated at 500 psi intervals until the injection pressure reaches a maximum of 4000 psi, or the water injection rate reaches a rate of 5 BPM (7,200 BPD) for 5 minutes. When the pumping unit is stopped, the tubing pressure will be recorded at 2 minute intervals for 60 minutes to get a pressure fall off test. The fracture pressure of the Lower Ismay formation should be about 3,000 psi. If the injection rate test indicates the formation has broken down, the injection pressure will not be increased.

5. The cement plugs set in the 1-23 State well located in the NESW Sec. 23, T40N, R22E, San Juan County, Utah are as follows:

Plug #1: 5,475 - 5,375' 35 ex
Plug #2: 5,282 - 5,182' 35 ex
Plug #3: 2,370 - 2,270' 35 ex
Plug #4: 1,244 - 1,144' 35 ex

I am enclosing copies of the job log and summary and field tickets from Halliburton for the two jobs. If you need any additional information, please let me know.

Very truly yours,



Robert W. Peterson

RWP:lt
Enclosures

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---oo0oo---

IN THE MATTER OF THE APPLICATION	:	NOTICE OF AGENCY ACTION
OF HAY HOT OIL, INC. FOR	:	
ADMINISTRATIVE APPROVAL OF THE	:	CAUSE NO. UIC-119
FEDERAL 23-32 WELL LOCATED IN	:	
SECTION 23, TOWNSHIP 40 SOUTH,	:	
RANGE 22 EAST, SAN JUAN COUNTY,	:	
UTAH, AS A CLASS II INJECTION WELL	:	

---oo0oo---

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division is commencing an informal adjudicative proceeding to consider the application of Hay Hot Oil, Inc. for administrative approval of the Federal 23-32 Well, located in Section 23, Township 40 South, Range 22 East, San Juan County, Utah, for conversion to a Class II injection well. The proceeding will be conducted according to the provisions of the Administrative Procedures rules, R615-10.

The operating data for the well is as follows:

Injection Interval: 5438' to 5640', Paradox Formation
Maximum Injection Rate/Surface Pressure: 3000 bwpd @ 2800 psig

Administrative approval of this application will be granted unless an objection is filed within fifteen days after publication of this notice by any person authorized to participate as a party in this adjudicative proceeding. If an objection is received by the Division, a formal adjudicative proceeding will be scheduled before the Board of Oil, Gas and Mining.

DATED this 22nd day of February, 1990.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING



R.J. Firth
Associate Director, Oil and Gas

CUSTOMER'S
COPY

CUSTOMER NAME AND ADDRESS	ACCOUNT NUMBER	BILLING DATE
DIV. OF OIL, GAS/MINING ATTN: BARBARA L. DUMAS 355 W NO TEMPLE, #350 SALT LAKE CITY, UT 84180	LE-5385340	03/01/90
	FOR BILLING INFORMATION CALL (801) 237-2822	

07622170620110100000000000000000889218733281731221211111111111111119903

143 SOUTH MAIN ST
P.O. BOX 45838
SALT LAKE CITY, UTAH 84145
FED. TAX ID. # 87-0217663

Newspaper Agency Corporation
The Salt Lake Tribune DESERET NEWS

840
CUSTOMER'S
COPY

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DIV. OF OIL, GAS/MINING ATTN: BARBARA L. DUMAS 355 W NO TEMPLE, #350 SALT LAKE CITY, UT 84180	LE-5385340	03/01/90
FOR BILLING INFORMATION CALL (801) 237-2822		

AFFIDAVIT OF PUBLICATION

NEWSPAPER AGENCY CORPORATION LEGAL BOOKKEEPER, I CERTIFY THAT THE ATTACHED
STATEMENT OF NOTICE OF AGENCY ACTION CAUSE NO. UIC-119 BEFORE FOR
DIV. OF OIL, GAS/MINING WAS PUBLISHED BY THE NEWSPAPER AGENCY
CORPORATION, AGENT FOR THE SALT LAKE TRIBUNE AND DESERET NEWS, DAILY NEWSPAPERS
PUBLISHED IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED
IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH.

PUBLISHED ON MAR 01 1990

SUBSCRIBER'S

SIGNATURE L. Anderson
03/01/90



NOTARY PUBLIC

ANDERSON

45 South State

Salt Lake City Utah 84111

My Commission Expires

November 15 1993

STATE OF UTAH

ACCOUNT NAME			TELEPHONE
DIV. OF OIL, GAS/MINING			801-538-5340
SCHEDULE			AD NUMBER
MAR 01 1990			2Q820110
CUST. REF. NO.	CAPTION		MISC. CHARGES
CAUSE #UIC-119	NOTICE OF AGENCY ACTION CAUSE NO. UIC-119 BEFORE		.00
SIZE	TIMES	RATE	AD CHARGE
57 LINES	1	1.56	88.92
DUE AND PAYABLE ON RECEIPT OF THIS INVOICE			TOTAL AMOUNT DUE
			88.92

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LE-5385340	2Q820110	03/01/90	88.92

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NEWSPAPER AGENCY CORPORATION

DIV. OF OIL, GAS/MINING
ATTN: BARBARA L. DUMAS
355 W NO TEMPLE, #350
SALT LAKE CITY, UT 84180

076221706201101000000000000000889218733281731221211111111111119903

March 3, 1990

TO Well File

FROM Glenn Goodwin, Oil and Gas Field Inspector

RE: Workover operations on Federal 23-32, T. 40S, R. 22E, Section 23, San Juan County Utah, API# 43-037-30575.

3/26/90 Drilled out cmt 1500'. Pressure tested, squeezed to 1500psi held for 10 min. Finished going in hole, cleaned out BP. TOOH and ran bond log.

3/27/90 TIH w/retrieving tool, picked up BP, TOOH. TIH w/bit and scraper, cleaned out and drilled to 5654'. Circulated hole w/clean fluid.

3/28/90 TOOH w/bit and scraper. TIH w/packer, set @5203'. Pressure tested to 3000psi. RU Dowell pumped 12bbl acid, 40 bbl brine, 18 bbl acid, 24 bbl brine, 42 bbl acid, 42 bbl brine-no breakdown. Instant shut down @2550psi-3:40pm. 5min @2400psi, 10min @2270psi, 15min @2190psi. 6:00pm shut in for the night.

3/29/90 Returned to location tbg pressure 500psi-blowed down and started swabbing.

Procedure was taken from Jack Binkleys notes.

INSP4/108

UIC	
GLH	<input checked="" type="checkbox"/>
DJJ	<input checked="" type="checkbox"/>
BGH	
COMPUTER	
MICROFILM	
FILE	



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter
Governor

Dee C. Hansen
Executive Director

Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

March 16, 1990

Hay Hot Oil, Inc.
P.O. Box 9
Montezuma Creek, Utah 84534

Gentlemen:

Re: Federal 23-32 Well, Section 23, Township 40 South, Range 22 East, S.L.M., San Juan County, Utah

In accordance with Rule R615-5-3(3), the Oil and Gas Conservation General Rules, administrative approval for conversion of the referenced well to a Class II injection well is granted.

The following actions are necessary to fully comply with this approval:

- 1) Compliance with the UIC requirements for operation, maintenance and reporting for Class II injection wells.
- 2) Conformance with all conditions of the submitted application.

If you have any questions regarding this approval or the necessary requirements, please contact this office.

Best regards,

Dianne R. Nielson
Director

ldc

cc: BLM, Moab
Brian Wood

WOI64

March 27, 1990

TO: Well File

FROM: Glenn Goodwin, Oil and Gas Field Inspector

RE: Workover operations on Federal 23-32, Section 23, T 40S, R 22E, San Juan County API# 43-037-30575.

3/20/90 Pressured 5 1/2" casing to 3000psi-held for 10 min. TOOH w/tubing and packer. RU wireline went in hole perforated 2 shots per ft in the Desert Creek formation-5622'-5633', 5608'-5613'. Perforated 4 shots per foot in the Chinle formation 1500'-1501'. TIH w/tubing and retrievable BP and packer. Set BP @ 5400'. Tested BP to 3000psi, circulated 1 sack of sand on top of BP. TOH w/tubing and set packer @ 1400' and opened surface valve, established circulation. Shut down for the night.

3/21/90 RU Dowell Well Service-squeezed perforations @ 1500'-1501' with 100 sacks of class "G" cement w/3% calcium chloride. Shut in w/1200psi.

3/22/90 TOOH w/packer-TIH w/bit drilled out cement. Pressure tested perforations, perforations broke down @ 2200psi. TOH w/bit. TIH w/packer. Shut in for the night.

3/23/90 RU Dowell Well Service-squeezed perforations 1500'-1501' w/65 sacks class "G" cement-2% calcium chloride. Shut in w/1200psi.

3/24/90 TOOH w/packer, TIH w/bit. Cement was not set. Shut in until 3/26/90.

INSP4/107

FEDERAL 23-32
(1970' FEL & 1950' FNL) SWNE
Sec. 23, T40S, R22E
SAN JUAN COUNTY, UTAH

Elevation: 4506' K.B., 4495' G.L.

Surface Casing: 13 3/8" cemented @ 150' K.B.
(no record of cement job)

Intermediate Casing: 8 5/8", 24 lb., K-55, LT&C, 8rd.
th casing cemented @ 1267' W/350
sx of BJ lite cement with 1/4
lb./ flocele/sx, followed W/200
sx Class "B" cement W/2% Cacl2.
Good cement returns.

Production Casing: 5 1/2", 15.5 lb., K-55, LT&C, 8
rd. th casing. Cemented W/5673'
W/300 sx Class "B" cement With 6
1/4 lbs./sx of Gilsonite, 7 lbs.
salt/sx and 0.6% D-31.
Estimated top of cement 4300' depth.

Present
Perforations: Lower Ismay 5438-61' W/4 jets/ft.
Desert Creek 5598-5606' W/2 jets/ft.
5608-13' & 5622-38' K.B. W/4 jets/ft.

P.B.T.D.: 5654' K.B. Driller

- 3-16 Moved Big "A" workover rig on location and rigged up. Pulled 3/4" diameter rods and layed down. Pulled & strapped out 2 7/8" EUE tubing. SDON.
- 3-17 T.I. W/2 7/8" EUE tubing W/4 3/4" dia. bit. RU drilling & circulating equipment to reverse circulator. Broke circulation. Drilled about 4" in 1 1/2 hrs. T.O. & bit was plugged W/rubber and aluminum or magnesium. No iron. T.O. W/2 7/8" tubing & strapped out again. Depth 5633.79' K.B. Strap was 5629.94' K.B. Previous Driller's TD W/5630' K.B. and log T.D. 5627' K.B. SDON.
- 3-18 SD for Sunday.
- 3-19 Install BOP. TI W/2 7/8" EUE tbhg. W/4 3/4" dia. bit. Finished drilling out rubber plug & float collar. Drilled cement 5630-5650' K.B. Circ. hole clean. TO & LD bit. PU seating nipple, standing valve & packer. Set packer @ 5401' K.B. Tested tubing to 3000 psi, OK. Shut pipe rams and tstd. annulus, but pipe rams wouldn't hold. Installed new rubbers in pipe rams. Used cheater to close rams & they still wouldn't hold. Removed BOP & fished out standing valve.

- 3-20 Install 2nd BOP. Pipe rams held. Pressure tested 2 7/8" tbg. & 5 1/2" casing annulus to 3000 psi. Held OK. RU Jet West wireline truck. Ran 3 1/2" csg. gun. TI W/csg. gun to perforate Desert Creek formation 5622-38' K.B. 4 jet/ft. Made 2nd trip W/csg. gun & perforated Desert Creek 5608-13' W/4 jets/ft. Made 3rd trip W/csg. gun. Perforated Lower Ismay 5446-61' K.B. W/4 jets/ft. Made 4th trip & perf. Chinle Shale 1500-01' K.B. RD wireline truck. PU packer & retrievable BP. Set retrievable BP @ 5400' K.B. Pull packer 1 stand & set. Pressured to 3000 psi, OK. Poured 1 sx sand on BP. T.O. W/packer. SDON.
- 3-21 5th Day. TI W/retrievable packer. RU Dowell pump truck. Pressure tested lines to 2500 psi. Pumped 2 1/2 bbls. water & perfs. 1500-01' K.B. broke down from 500 psi to 0. Had circulation at surface. Pumped 500 gals mud flush W/CW-7. Mixed 100 sx Class "G" cmt. W/3% Cacl₂. Displaced W/8 bbls. shut in annulus. Staged 1/4 bbl. cement every 15 mins. until 2 1/2 bbls. of cement was pumped. SD pump. SI W/450 psi T.P. & 300 psi C.P. SD @ 12 Noon. WOC.
- 3-22 6th Day. Worked packer loose & TO W/packer. Bottom 2" of packer was set in cmt. TI W/4 3/4" bit. Drilled 190' cement 1311-1501' K.B. Circ. out cuttings. Pressure tested to 2400 psi & perfs. broke down & took 1/2 BPM @ 1100 psi. Had planned to test to 2500 psi. TO & PU 5 1/2" packer. TI to 1249'. Set packer pressure tested to 500 psi, OK. Released packer. SDON.
- 3-23 7th Day. Reset packer. Press annulus to 500 psi. Pumped down tbg. @ 1 1/4 BPM @ 1200 psi. Mixed cmt. @ 15.8-15.9 PPG. Mixed 65 sx regular W/2% Cacl₂. Displaced to perfs. @ 1 1/4 BPM @ 1200 psi. Pressure increased to 1500 psi when cmt. entered perfs. 11 bbls. displacement, 3/4 BPM, 1350 psi TP. SD 15 min., 1/4 BPM rate 1200 psi, 2nd SD 15 mins. Broke to 850 psi & then increased to 1250 psi, 3rd 15 mins. 1200 psi, 12 1/4 bbls. in, 1 1/4 bbls. left in csg. SD W/max TP 1500 psi. Shut well in @ noon.
- 3-24 8th Day. SITP 1500 psi. Released pressure. TI W/4 3/4" bit. Found top of cmt. @ 1393' K.B. Drilled & washed green cement 1393-1466' K.B. Stringers of green cmt. so decided to WOC another 44 hrs. to Monday morning. Pressured casing to 1500 psi.
- 3-25 9th Day. Sunday. SD. WOC.
- 3-26 10th Day. Released pressure. Drilled 36' of hard cmt. 1466-1502' K.B. TO W/4 3/4" bit. Pressure tested csg. to 1500 psi. Held OK. RU Jet West. Ran CBL. Hole bridged 2307' K.B. TI W/4 3/4" bit & hit bridge @ 2307' & 4200'. Firm. Washed last 10' to top of BP. Circ. hole. TO. Ran CBL from 4600-4400' K.B. 100% bond. Top of cmt. 4424' K.B. Ran CBL 1700-1100'. Base of cmt. 1650' K.B. 1570-1600' 75% bond, 1570-1200', 90-100% bond. Top of cmt. 1165' K.B. PU retrieving tool. TI to 150' off bottom. SDON.

3-27 11th Day. Washed to BP W/retrieving tool. Circ. & plugged off. Pumped down tbg. & broke circ. Pulled 9 stands 2 7/8" tbg. & BP started hanging up. Circ. & worked BP free. Finished TO. LD tools. PU 4 3/4" bit & scraper. TI W/2 7/8" tbg. & clean out to 5650' K.B. & blew out packer rubber. Drilled & circ. to 5664' K.B. Circ. hole. Displace drilling fluid W/ clean water. TO to above perms. SDON.

3-28 12th Day. Finished TO W/tbg. LD bit & PU packer. TI W/5 1/2" packer. Packer hung up @ 1314' K.B. TO W/packer & changed packer. TI W/packer to 5203' K.B. Displace annulus W/packer fluid. PU & set packer. Pressure test to 3000 psi. Hook up Dowell pump truck & pumped fluid as follows:

<u>TIME</u>	<u>T.P. PSIG</u>	<u>AMOUNT OF FLUID PUMPED-BBLS.</u>	<u>BPM</u>	<u>TYPE FLUID</u>
13:51 PM		12	2.0	28% HCL Acid
13:59 PM	960	40	2.0	Brine Spacer
14:16 PM	1800		2.9	Brine Displaced
14:19 PM	2300	18	2.9	28% HCL Acid
14:25 PM	2400	24	2.9	Brine Spacer
14:32 PM	2650		0.7	Displaced Spacer
14:39	1910	42	0.8	Acid
14:53	1850		2.8	Brine
15:04	2750		1.2	Brine Acid Displaced
15:40	2700			

3-29 13th Day. TP 500 psi @ 6:30 AM. Bled tbg. to pit. RU to swab thru 2 7/8" tbg. Swabbed 310 bbls. in 44 swab runs., 176 bbls. load water & spent acid water & 134 bbls. formation water. F.L. @ 2700' depth last 5 swab runs & swbg. from 4900' depth. Last 5 runs spent acid water, but not much gas.

3-30 14th Day. Ran tbg. swab & found fluid level @ 1600'. Swbd. out 50 bbls. water. Released packer. Circ. out packer fluid. TO W/packer. TI W/4 3/4" dia. bit. Tagged fill @ 5656'. Circ. out red siltstone 5656-64' K.B. Circ. hole clean. SDON.

3-31 15th Day. TI W/4 3/4" bit. Tagged bottom W/2" fill. Circ. out. Displaced hole W/clean water. TO & LD bit. PU 5 1/2" Halliburton PPI packer. SD @ 1 PM.

4-1 16th Day. SD for Sunday.

4-2 TI W/4 stands. Tagged bottom. PU tbg. Spot acid. Set packer W/23 settings. Acidized W/3000 gals. 28% Fe acid, 6 gals. Hc-2, 6 gals HAI-85 total.

Acidized Desert Creek perms as follows:

<u>TIME</u>	<u>RATE</u>	<u>VOLUME GALS.</u>	<u>BREAKDOWN PRESS. PSI</u>	<u>TREATING PRESS. PSI</u>	<u>EVENT</u>
8:00					Test lines to 3500 psi.
8:08	2.0	1396	1300		Spotted acid.
8:30	4.4	150	2600	2800	5638-36 Communication.
8:32	4.5	150	2600	2700	5636-34 Communication.
8:35	4.7	100	2600		5634-32 Communication.
8:37	4.0	100	2600		5630-28 Communication.
8:40			3400		5628-26 No Breakdown.
8:45			2900-3200		5626-24 No Breakdown.
8:50			3000-3500		5624-22 No Breakdown.
8:53	4.6	100	2600	2600	5622-20 Communication.
8:54	4.7	100	2500	2600	5620-18 Communication.
8:56	4.7	100	2700		5618-16 Communication.
8:57	4.7	100	3100		5616-14 No Breakdown.
8:59	3.2	150	2700		5614-12 Breakdown.
9:00	4.6	150	2700		5612-10 Breakdown.
9:02	4.7	150	2700		5610-08 Breakdown.
9:04	4.2	150	2800		5608-06 Breakdown.
9:06	2.0	150	2700		5606-04 Breakdown.
9:07	4.6	150	2700		5604-02 No Breakdown.
9:08	4.5	150	2800		5602-00 Breakdown.
9:10	4.1-3.8	150	2700-2900		5600-5598 Breakdown.
9:12	4.0-2.4	150	2800-2900		5598-96 Breakdown.
9:14	4.0-4.4	150	2800-2900		5596-94 Breakdown.
9:15			3000		5594-92 No Breakdown.

Displace acid out of tubing. TI W/sand line to retrieve plugs.
 Broke sand line. Cut off 250' sand line. Fished out 2nd plug.
 Pulled & layed down 14 jts. 2 7/8" EUE tbg. Set packer @ 2550' K.B.
 Pumped down tbg. & displaced acid out of 5 1/2" casing. Displaced @
 3 1/2 BPM @ 1500 psi for 80 bbls. RD Halliburton. TO W/PPI packer.
 TI W/5 1/2" Baker Model R-3 packer & set @ 5204.93' K.B. SN on top
 of packer. Displaced annulus W/packer fluid. Set packer W/20,000
 lbs. flanged up wellhead. SD @ 6 PM.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 1004-013
Expires August 31, 1985
5. LEASE DESIGNATION AND SERIAL NO.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL ☐ GAS WELL ☐ OTHER ☒

Water Injection Well

2. NAME OF OPERATOR

Hay Hot Oil, Inc.

(801) 651-3469

3. ADDRESS OF OPERATOR

P.O. Box 9, Montezuma Creek, Ut. 84534

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirement.
See also space 17 below.)
At surface

Surface: 1950' FNL & 1970' FEL (SWNE) Bottom: Some

14. PERMIT NO.

43-037-30575

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

4,506' KB

6. IF INDIAN ALLIANCE OR TRIBE NAME

N/A

7. UNIT AGREEMENT NAME

N/A

8. FARM OR LEASE NAME

9. WELL NO. Federal

10. FIELD AND TOOL, OR WILDCAT

11. SEC., T., R., E., or BLK. AND SURVEY OR AREA

23-32
Turner Bluff
23-40s-22e SLBM

12. COUNTY OR PARISH

San Juan

13. STATE

Ut

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other) CONVERT OIL WELL TO INJECTION WELL

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

See attached daily report detailing conversion of oil well to a water injection well.

*Lease was held by production by this well. Since well is no longer producing, lease may soon terminate. In any event, as discussed with Lynn Jackson of BLM's Moab District Office on 1-2-90, P&M Petroleum Management operates lease, but does not operate well. Hay Hot Oil, Inc. operates well, but not lease.

UIC	
GLH	<input checked="" type="checkbox"/>
DJJ	<input checked="" type="checkbox"/>
BGH	<input checked="" type="checkbox"/>
COMPUTER	<input checked="" type="checkbox"/>
MICROFILM	<input checked="" type="checkbox"/>
FILE	<input checked="" type="checkbox"/>
Consultant	

OIL AND GAS	
DRN	GLH
JRB	GLH
DTS	SLS
D-TAS	
MICROFILM	
DATE 4-29-90	
FILE	

18. I hereby certify that the foregoing is true and correct

SIGNED

Brian Wood

TITLE

Consultant

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

cc: Roach, UDOGM(2)

*See Instructions on Reverse Side

May 31, 1990

Y-

K/DW

43-037 30575

TO: Well File

FROM: Glenn Goodwin, Oil and Gas Field Specialist

RE: Turner Bluff Federal 23-32, Section 23, T40s, R22e Well Conversion

5/16/90-Pressure tested casing to 1100psi, started taking water. Shutin well.

5/18/90-MIRU Flint Well Service. Nippled down wellhead, went in hole w/15 joints of tubing. Tagged bottom, no fill up, layed down 15 joints, nipped up wellhead. Pressure tested casing to 1500psi and held for 15 minutes. This indicated the packer was leaking on the 16th and not the squeeze @1500'. Shutin well for the weekend.

5/21/90-Returned to location-nippled down wellhead, released packer and pulled out of the hole. Rigged up wireline unit-run in the hole-perforated desert creek formation from 5622' to 5638'. Gun stopped @5242'. Rigged down wireline-went in the hole w/bit and tubing. Shut down for the night.

5/22/90-Finished running in the hole with singles-tagged bottom and circulated well. Picked up power swivel and cleaned well out to 5673'. Pulled above perforations. Shutin for the night.

5/23/90-Finished trip out of the hole-picked up scraper-tripped in hole to bottom and circulated well. Tripped out of hole. Rigged up wireline (Jet West)-went in the hole to perforate, gun stopped @5248', came out of the hole and shut down for the night.

5/24/90-Ran in hole with gauge ring and ball catcher on wireline-pulled out and layed down catcher. Went in hole w/3 1/2" gun, perforated from 5622' to 5646'(4 shots per foot). Rigged down wireline. Ran in hole w/packer and tubing-set packer @5205' KB. Rigged down.

INSP4-110



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter
Governor

Dee C. Hansen
Executive Director

Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

4303730575
WDW

June 21, 1990

Mr. Roach
Hay Hot Oil, Inc.
P.O. Box 9
Montezuma Creek, Utah 84534

Dear Mr. Roach:

Re: Reporting Responsibilities for Water Disposal Well #23-32, Section 23, Township 40 South, Range 22 East, San Juan County, Utah

As a new operator of a produced water disposal well you may not be aware of the responsibilities including reporting to this Division which is required on a regular basis. Most class II injection wells are operated by oil and gas producing companies who are familiar and accustomed to regulatory requirements. This letter is to familiarize you with some of the reporting requirements and supply you with the forms which can be used unless others showing similar information is preferred.

Sundry Notices: Rule R615-8-10 requires a report on Form 9 to notify the Division of the intention to do miscellaneous work on a well, and to report the subsequent results of the work. An intent notice to do work on a well should be received and approved prior to work commencing. Verbal approvals can be given followed by a report.

Monthly Reports: Rule R615-8-19 requires a monthly report of injection pressure, rate and volume on a daily basis. This should be reported on UIC Form 3 or similar form containing the same information. These reports are due within 30 days following the end of each month.

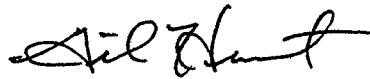
Annual Reports: Rule R615-8-20 requires filing of an annual injection report on UIC Form 4 or similar form. A sample of injected fluids must be taken at least once per year and analyzed. A copy of the analysis should be included with the annual report to the Division. The annual report is due within 60 days following the end of the year.

Page 2
Mr. Roach
June 21, 1990

The Division has not been receiving monthly injection reports since injection began into the referenced well. Please provide these reports as soon as possible.

If you have any questions concerning the proper reporting of injection well operations, please call.

Sincerely,

A handwritten signature in black ink, appearing to read "Gil Hunt", with a stylized flourish at the end.

Gil Hunt
UIC Manager

Idc
Enclosures
WO1156



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter
Governor

Dee C. Hansen
Executive Director

Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

August 19, 1991

Hay Hot Oil, Inc.
P.O. Box 9
Montezuma Creek, Utah 84534

Gentlemen:

Re: Federal 23-32 Well, Section 23, Township 40 South, Range 22 East, San Juan
County, Utah 43-037-30575

The referenced disposal well has been shutin for several months. Also inspections have shown that the well is leaking fresh water probably from around the surface casing. The Division requests at this time that remedial action be taken to curtail the water leak. If the well is no longer needed or is no longer capable of serving as a disposal well, plans should be made to properly plug and abandon the well.

If we can be of assistance in this matter, please contact this office.

Sincerely,

Gil Hunt
UIC Manager

ldc
cc: BLM, Moab

STATE OF UTAH
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

INJECTION WELL - PRESSURE TEST

Test Date: <u>5/26/94</u>	Well Owner/Operator: <u>Hay/Hot Oil</u>
Disposal Well: <u>X</u>	Enhanced Recovery Well: _____ Other: _____
API No.: 43- <u>037-30575</u>	Well Name/Number: <u>Fed 23-32</u>
Section: <u>23</u>	Township: <u>40S</u> Range: <u>22E</u>

Initial Conditions:

Tubing - Rate: 0 Pressure: 0 psi

Casing/Tubing Annulus - Pressure: ? psi

Conditions During Test:

<u>Time (Minutes)</u>	<u>Annulus Pressure</u>	<u>Tubing Pressure</u>
0	<u>1000</u>	_____
5	<u>500</u>	_____
10	<u>0</u>	_____
15	_____	_____
20	_____	_____
25	_____	_____
30	_____	_____

Results: Pass/Fail (Fail)

Conditions After Test:

Tubing Pressure: 0 psi

Casing/Tubing Annulus Pressure: 0 psi

REMARKS:

Pressure off on casing valve leaks well
would not hold pressure. Well will be
retested in 1-2 months, well is SI

Operator Representative

D. J. Harris
DOGM Witness



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

July 5, 1994

Hay Hot Oil
P.O. Box ii
Cortez, Colorado 81321

Re: Pressure Test for Mechanical Integrity, McCracken 1-19 and Federal 23-22, Injection Wells, Sec. 11 and 23, T. 40 S., R. 23 E., and T. 40 S., R. 23 E., San Juan County, Utah

Gentlemen:

The Underground Injection Control Program which the Division of Oil, Gas and Mining (DOGM) administers in Utah, requires that all Class II injection wells demonstrate mechanical integrity. Rule R649-5-5.3 of the Oil and Gas Conservation General Rules requires that the casing-tubing annulus above the packer be pressure tested at a pressure equal to the maximum authorized injection pressure or 1,000 psi, whichever is lesser, provided that no test pressure is less than 300 psi. This test shall be performed at least every five year period beginning October, 1982. Our records indicate the above referenced wells are due for testing. Please make arrangements and ready the wells for testing during the week of August 1, 1994 as outlined below:


1. Operator must furnish connections, and accurate pressure gauges, hot oil truck (or other means of pressuring annulus), as well as personnel to assist in opening valves etc.
2. The casing-tubing annulus shall be filled prior to the test date to expedite testing, as each well will be required to hold pressure for a minimum of 15 minutes.
3. If mechanical difficulties or workover operations make it impossible for the wells to be tested on this date the tests may be rescheduled.

Page 2
Pressure Test
July 5, 1994

4. Company personnel should meet DOGM representatives at the field office or other location as negotiated.
5. All bradenhead valves with exception of the tubing on the injection wells must be shut in 24 hours prior to testing.

Please contact Dan Jarvis at (801)538-5340 to arrange a meeting time and place or negotiate a different date if this one is unacceptable.

Sincerely,

A handwritten signature in black ink, appearing to read "Gil Hunt", with a long horizontal flourish extending to the right.

Gil Hunt
UIC Program Manager

Idc
Attachment
WOI52



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
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Gil Hunt
UIC Program Manager

Idc
Attachment
WOI52



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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PLUGGING AND ABANDONMENT STIPULATIONS
TURNER BLUFF FEDERAL 23-32
Section 23, Township 40 South, Range 22 East
San Juan County, Utah
API # 43-037-30575

1. Notify DOGM 48 hours prior to plugging.
2. In step # 2, circulate hole with the 9 ppg mud mixed w/oxygen scavenger and corrosion inhibitor. Pressure test casing to 500 psi for 15 minutes.
3. Cont. POH to 4460' set a 100' balanced cement plug to 4360'. (top of cement behind casing.)
4. Omit step 6, do not perforate the casing.
5. R649-3-24-3.3 says use 10 sx plug at the surface. In 5 1/2" casing this is approximately 75'.
6. Cut off casing and fill all annulus with 100' of cement to surface. Cement dry hole marker in place with a 10 sx plug in the 5 1/2" casing.
7. Reclaim location as per State of Utah School & institutional Trust Lands Administration specifications.



STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

CEIVE

3. LEASE DESIGNATION & SERIAL NO.

U-16766

SUNDRY NOTICES AND REPORTS ON WELLS MAR 18 1996
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

4. INDIAN, ALLOTTEE OR TRIBE NAME

5. UNIT AGREEMENT NAME

6. FARM OR LEASE NAME

Federal

7. WELL NO.

23-32

10. FIELD AND POOL, OR WILDCAT

Turner Bluff

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

23-40s-22e

12. COUNTY

San Juan

13. STATE

Utah

1. OIL ☐ GAS ☐ WELL ☒ OTHER ☐

2. NAME OF OPERATOR

Hay Hot Oil, Inc.

3. ADDRESS OF OPERATOR

Box II Cortez, Co. 81321 1(303)565-8637

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)

At surface

1950' FNL & 1970 FEL

At proposed prod. zone

SAME

14. API NO.

43-037-30575

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

16.

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

☐

FULL OR ALTER CASING

☐

FRACTURE TREAT

☒

MULTIPLE COMPLETE

☐

SHOOT OR ACIDIZE

☒

ABANDON

☒

REPAIR WELL

☐

CHANGE PLANS

☐

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

☐

REPAIRING WELL

☐

FRACTURE TREATMENT

☐

ALTERING CASING

☐

SHOOTING OR ACIDIZING

☐

ABANDONMENT*

☒

(Other)

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

APPROX. DATE WORK WILL START

April '96

DATE OF COMPLETION

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

* Must be accompanied by a cement verification report.

See Attachment "A"

325-2667

18. I hereby certify that the foregoing is true and correct

SIGNED

Randy Blankman

TITLE

P&A Supervisor

DATE

3-13-96

(This space for Federal or State office use)

APPROVED BY

P. J. Matthews

TITLE

Petroleum Engineer

DATE

3/22/96

CONDITIONS OF APPROVAL, IF ANY:

as per attached stipulations

See Instructions On Reverse Side

Attachment "A"

Federal 23-32

1. **RIH w/CIBP set @ 5400'. Spot 6 sx cement plug on top of CIBP.**
2. **PU above cement and load hole with water. Pressure test casing to 500 psi.**
3. **PU to 4555'. Spot 17 sx balanced plug (4455' to 4555').**
4. **Perforate 2 holes @ 2515'. RIH w/Retainer set @ 2465'. Mix & pump 45 sx cement (34 sx below retainer & 11 sx above retainer).**
5. **PU to 1557'. Spot 43 sx balanced plug (1217' to 1557').**
6. **POOH. Perforate 2 holes @ 50'. Establish circulation out bradenhead. Mix and pump cement until good returns are visible at surface (approximately 12 sx). WOC.**
7. **Cut off casing strings & top off as needed. Install dry hole marker.**
8. **Reclaim location as per BLM specifications.**

Note: 9# mud will be placed between all plugs.

CBL shows TOC @ 4424'. CBL also shows cement 1165' to 1650' as a result of squeeze jobs done 3-21-90 & 3-23-90.

Lease:TURNER BLUFF FEDERAL
Well #:23-32

Spud Date: 01/19/1981
KB: 4506
TD: 5673

Comp Date: 04/24/1981
ELEV: 4495
PBTD: 5478

API #: 43-037-30575-

Location: Sec 23 Twn 40S Rng 22E

County: SAN JUAN

State: UTAH

Field: SW TURNERS BLUFF

Operator: HAY HOT OIL

		Start	Size	
		End	Length	Description
0-				
570-				
1140-				
	1	0.0	12.250	Hole: SURFACE
		1267.0	1267.0	
	2	0.0		Cement: 664 CU FT. BJ LITE + 272 CU
		1267.0	1267.0	FT. CLASS B CIRCULATED GOOD CMT.
	3	0.0	8.625	Casing: 24# CASING
		1267.0	1267.0	
1710-	2	1500.0		Perf: 4 SHOTS PER FT. RESQUEEZE W/65
		1501.0	1.0	SXS CL G
		1500.0		Perf: 4 SHOTS PER FT. SQUEEZE
		1501.0	1.0	W/100SK OF CL G +3%CACL BROKE DOWN
	3	1165.0		Cement: SQUEEZE
		1650.0	485.0	
2280-				
2850-				
3420-	4	3250.0		Formation: CUTLER EVAPORITES
		3434.0	184.0	
	5	3434.0		Formation: ORGAN ROCK TONGUE
		3810.0	376.0	
3990-	6	3810.0		Formation: CEDAR MESA SS
		4249.0	439.0	
	7	4249.0		Formation: HONAKER TRAIL
		5316.0	1067.0	
	8	5316.0		Formation: UPPER ISMAY
		5437.0	121.0	
		5437.0		Formation: LOWER ISMAY
4560-		5494.0	57.0	
	9	5608.0		Perf: 4 SHOTS PER FT.
		5613.0	5.0	
		5622.0		Perf: 4 SHOTS PER FT.
		5633.0	11.0	
		5494.0		Formation: PARADOX SHALE
		5646.0	152.0	
5130-		1267.0	7.875	Hole: PRODUCTION
	7	5673.0	4406.0	
		4424.0		Cement: 426 CUFT. CL B RST. TOP OF
	8	5673.0	1249.0	CEMENT 4424
		0.0	5.500	Casing: 15.5# CASING
		5673.0	5673.0	
	9	5646.0		Formation: DESERT CREEK
		5673.0	27.0	

FAX # 801-359-3940

Mr. Frank Matthews
Utah Division of Oil, Gas, and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

RE: Seed Mixture for Bluff Bench Area
San Juan County, Utah (T. 40 S., R. 22 E.)

None of the Range Staff were available in the Monticello BLM Office. The seed mixture below is similar to a BLM mixture for a Hay Hot Oil Right-of-Way.

In the past the Monticello BLM had been recommending seeding between September 1 and February 15.

Indian ricegrass
Sand dropseed
Fourwing saltbush

4 lbs/acre
1 lb/acre
3 lbs/acre

The above seed mixture should be increased by 50 percent if broadcast seeded.

Rich McClure 3/22/96

For final inspection call Ed Bonner
@ 801-538-5474. Please use the
above BLM recommended seed mixture
and time of seeding as above.

Matthews



PHONE (801) 789-1698

FAX (801) 789-1007

P.O. BOX 5 - 1304 SOUTH 1200 EAST
VERNAL, UTAH 84078

Big A Well Service

Randy Blackman

708 S. Tucker

FARMINGTON, New Mexico
87401

Sent Copy to this Address 3/22/94

DRP

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
RECORD OF ABANDONMENT OPERATIONS

COMPANY NAME: HAY HOT OIL CO.

WELL NAME: FEDERAL 23-32

QTR/QTR: SW/NE SECTION: 23 TOWNSHIP: 40S RANGE: 22E

COUNTY: SAN JUAN API NO: 43-037-30575

INSPECTOR: J. THOMPSON TIME: _____ DATE: 3/31-4/3/96

SURFACE CASING SHOE DEPTH _____ CASING PULLED YES _____ NO ☒

CASING PULLED: SIZE _____ CUT DEPTH _____ FT/CSG RECOVERED _____

CASING TESTED YES ☒ NO _____ TESTED TO: 275 PSI TIME: 15 MIN:

CEMENTING COMPANY: BIG "A" WELL SERVICE

CEMENTING OPERATIONS: P&A WELL: X (SEE ATTACHED REPORT OF OPERATIONS).

PLUG 1. SET: FROM _____ FT. _____ TAGGED YES _____ NO _____

SLURRY: _____

PLUG 2. SET FROM _____ FT. _____ TAGGED YES _____ NO _____

SLURRY: _____

PLUG 3. SET FROM _____ FT. _____ TO _____ FT. TAGGED YES _____ NO _____

SLURRY: _____

PLUG 4. SET FROM _____ FT. _____ TO _____ FT. TAGGED YES _____ NO _____

SLURRY: _____

SURFACE PLUG: FROM _____ FT. _____ TO _____ FT.

ALL ANNULUS CEMENTED TO SURFACE: YES X NO _____

PLUGGING FLUID TYPE: _____

PERFORATIONS: FROM _____ FT. TO _____ FT.
FROM _____ FT. TO _____ FT.

1 CIBP SET: 5400'
2 CIBP SET: _____

ABANDONMENT MARKER: PLATE: X PIPE: _____ CORRECT INFORMATION: X

COMMENTS: _____

Portland 4" B cement

REPORT OF PLUGGING OPERATIONS
HAY HOT OIL CO.
FEDERAL 23-32
SECTION 23, T. 40S, R. 22E
SAN JUAN COUNTY

- 4/1/96 POH 5190.8' 2 7/8" Tubing-tubing tallied @ 30.8' per joint. Pressure tested csg to 500#'s. Pressure bled off to 350#'s in one minute, continued to bleed off to 275#'s in an additional five minutes. Pressure held @ 275 #'s for fifteen minutes. Set on wire line 5 1/2" CIBP @ 5400'.
- 4/2/96 RIH 175 joints 2 7/8" tubing to top of CIBP. Pumped 6 sx Portland "B" cement on top of CIBP. Displaced w/30 bbls of fresh water and corrosion inhibitor. Well flowed back-re-pumped 1 bbl down hole.
- POH layed down 30 joints (924') to 4466'. Pumped 17 sx Portland "B" cement, displaced w/25 bbls fresh water and corrosion inhibitor. Length of balanced plug 150'. 4466-4316.
- POH layed down 94 joints (2895'to 1571'. Pumped 43 sx Portland "B" cement, displaced w/5 bbls fresh water and corrosion inhibitor. Approximate length of plug 370'.
- POH stood back 5 stands. POH layed down 7 joints.
- 4/3/96 RIH w/39 joints tagged balance plug @ 1201' with 5000#'s pressure. POOH and layed down 39 joints.
- RIH w/3 joints-pumped 20 sx cement. POOH layed down 3 joints.
- Rigged down BOPE-dug out around wellhead-water leak at plate welded around the 8 5/8" and 9 5/8" casings. Opened 2" ball valve on the 13 3/8" csg relieved pressure and re-welded plate. Cut off wellhead ran 60' of 1" outside 5 1/2" csg, pumped 20sx cement to fill both casings to surface. Welded plate on casing w/well information.
- Opened valve on 13 3/8" csg pumped 55 sx cement to stop water flow.
- 4/4/96 Opened valve on 13 3/8" csg. No water flow present.

MEMORANDUM

To: File
Re: Hay Hot Oil, Saltwater Disposal Well 23-32
From: Mike Hebertson
Date: April 22, 1996

On the afternoon of the above noted date this well site was inspected as requested by Frank Matthews. There are no noted problems with the location, and in particular there is no wet spot or any sign of water on the location where the well was located. The plugging performed during the month of March appears to have been complete.

A handwritten signature in cursive script, appearing to read "Frank Matthews", is written in dark ink.